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DEPARTMENT OF DEFENSE WASHINGTON DC  
MILITARY MANPOWER TRAINING REPORT FOR FY 1981.(U)  
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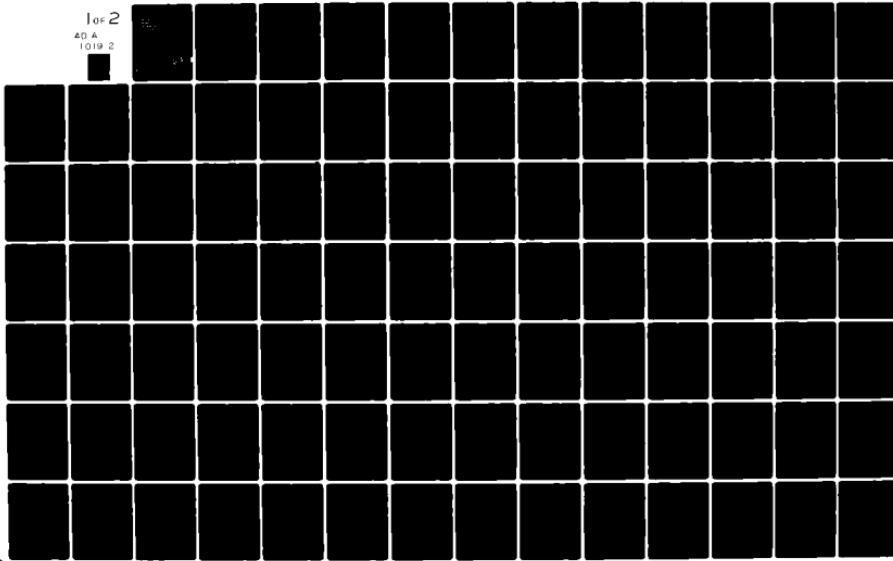
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**MILITARY  
MANPOWER  
TRAINING REPORT  
FOR FY 1981**

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## EXECUTIVE SUMMARY

The Military Manpower Training Report of the Secretary of Defense is submitted to the Congress in accordance with 10 U.S.C. 138(d)(2), which states:

The Secretary of Defense shall submit to Congress a written report, not later than March 1 of each fiscal year, recommending the average student load for each category of training for each component of the armed forces for the next three fiscal years, and shall include in that report justification for, and explanation of, the average student loads recommended.

In compliance with the law, this report presents the recommended military student training loads for the Department of Defense for Fiscal Years 1980 through 1982. The report specifically supports the Department of Defense request for authorization of average military student training loads for each component, active and reserve, of each Service for Fiscal Year 1981. Requested training loads are shown in the following table.

### Requested Training Loads, FY 1981 and FY 1982

	<u>FY 1981</u>	<u>FY 1982</u>
<b><u>Active Components</u></b>		
Army	72,018	71,609
Navy	64,545	62,811
Marine Corps	21,393	21,053
Air Force	<u>46,238</u>	<u>47,368</u>
Subtotal	204,194	202,841
<b><u>Reserve Components</u></b>		
Army National Guard	14,016	14,003
Army Reserve	9,348	9,429
Naval Reserve	953	957
Marine Corps Reserve	3,144	3,152
Air National Guard	1,930	1,924
Air Force Reserve	<u>1,139</u>	<u>1,136</u>
Subtotal	30,530	30,601
TOTALS	234,724	233,442

### Definitions and Explanation of Training Loads

This report discusses the training and education of individuals within the Department of Defense, as opposed to the training of operational mission units or crews. Individual training and education, for purposes of this report, is divided into six categories:

- Recruit Training, given to all enlisted entrants to the Services who have not had previous military service.
- One-Station Unit Training, an Army program which combines Recruit Training and training in certain skills into a single continuous course.
- Officer Acquisition Training, which leads to a commission in one of the Services.
- Specialized Skill Training, needed to prepare military personnel for specific jobs in the Military Services.
- Flight Training, primarily for prospective pilots and navigators before they receive an initial operational assignment.
- Professional Development Education, relating to the advanced professional duties of military personnel or to advanced academic disciplines to meet Service requirements.

"Training loads" are the average number of students and trainees participating in formal individual training and education courses during the fiscal year. For a full fiscal year, training loads are the equivalent of student/trainee manyears for these participants, including both those in temporary duty and permanent change of station status.

The requirement for training in a base-line force is derived from the need to replace losses in each skill required in the military force structure. Losses, through separations, promotions and other causes, are projected at various points in the future and compared to the projected inventory of trained personnel. The deficit between the requirement in each skill and the inventory becomes a demand for an output of trained personnel. A phased input of students to the training establishment is then scheduled so that trained personnel, in each skill and skill level, are available at the proper time to replace the losses in those skills. The resulting workload placed on the training establishment is the basis of the training loads addressed in this report.

The training load for each component is the measure of the amount of training required for the members of that component, although some of the training will be done by other Services, in DoD schools, or in some cases by institutions outside the Department of Defense. The training of members of the Reserve Components included in the report is the formal school training provided by the active training establishment to individual members of the Reserve Components while they are on active duty for training; this is primarily training provided to non-prior service personnel entering the Reserve Components.

#### An Overview of Training Loads

During FY 1981 and FY 1982, total requested DoD training loads will range between approximately 234,700 and 233,400. About 87 percent of these annual loads is composed of training for members of the active forces; the remaining 13 percent of these loads is training for members of the Reserve Components, while on active duty, conducted by the active training establishment.

The following table displays the percentage of total active force loads and the percentage of total Reserve Component loads attributable to each of the major categories of training in FY 1981.

Percent Distribution of Training Loads, FY 1981

<u>Training Category</u>	<u>Active Forces</u>	<u>Reserve Components</u>
Recruit Training	21%	29%
One-Station Unit Training	9%	30%
Officer Acquisition Training	9%	1%
Specialized Skill Training	54%	38%
Flight Training	3%	1%
Professional Development Education	5%	1%
Total	100%	100%

It will be noted that the preponderant categories of training, in terms of training loads, are Recruit Training and Specialized Skill Training, both of which, along with One-Station Unit Training, are strongly influenced by the number of enlisted non-prior service accessions to the force. Other types of training -- all of Officer Acquisition Training, for example -- are also driven by the number of new accessions to the force. The following table divides the requested training loads for FY 1981 into two parts: training which is primarily accession-related, and is conducted for the purpose of turning a civilian into a qualified service member with a usable military skill; and other training, which, for the most part, is conducted for the purpose of preparing members in later stages of their military careers for more demanding duties.

Accession-Related Training and Training Loads, FY 1981  
 (Thousands)

	Active Forces	Reserve Components	Total Active & Reserve
<u>Accession-Related Loads</u>			
Recruit	41.9	8.7	50.6
One-Station Unit Training	18.9	9.3	28.2
Officer Acquisition	17.5	0.4	17.9
Initial Skill (Officer & Enlisted) <sup>a/</sup>	67.1	9.0	76.1
Undergraduate Flight	5.7	0.3	6.0
Subtotal	<u>151.1</u>	<u>27.7</u>	<u>178.9</u>
<u>Other Loads</u>			
Other Specialized Skills	43.3	2.5	45.8
Other Flight	0.4	0.1	0.5
Professional Development	9.3	0.2	9.6
Subtotal	<u>53.1</u>	<u>2.8</u>	<u>55.8</u>
<u>Accession-Related Loads as Percent of Total Loads</u>	74	91	76

Note: Numbers may not add to due to rounding.

<sup>a/</sup> In some cases, includes some training for prior-service personnel or personnel who receive the training at a later stage in their career.

As the table shows, training primarily related to new accessions amounts to about 74 percent of all training programmed for the active forces in FY 1981; only about 26 percent is for subsequent training. The comparable proportions for the Reserve Components are about 91 and 9 percent. The concentration on accession-related training demonstrates the priority the Services place on training intended to produce new Service members who are motivated, amenable to discipline, and capable of productive service as members of military organizations.

The following table shows the trend in training loads.

Active and Reserve Training Load Trends by Service,  
FY 1973 - 81  
(Thousands)

	<u>FY 73</u>	<u>FY 77</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>Percent Change</u>	
						<u>FY 73-81</u>	<u>FY 79-81</u>
<b>Active Forces</b>							
Army	109	78	67	78	72	-34	+ 7
Navy	77	62	57	61	65	-16	+13
Marine Corps	30	23	22	23	21	-28	- 4
Air Force	59	45	39	44	46	-21	+19
Total Active	274	208	185	205	204	-25	+10
<b>Reserve Components</b>							
	25	25	24	28	31	+23	+28
Total DoD	299	233	209	233	235	-21	+12

Note: Calculations are affected by rounding.

The following table compares training loads by the major categories of training.

Active and Reserve Training Load Trends by Training Category  
FY 1973 - 81  
(Thousands)

	<u>FY 73</u>	<u>FY 77</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>Percent Change</u>	
						<u>FY 73-81</u>	<u>FY 79-81</u>
<b>Recruit</b>							
Officer Acquisition	94	67	46	51	51	-46	+ 9
Specialized Skill	20	17	17	18	18	-10	+ 5
Flight	157	126	108	119	122	-22	+13
Professional Development	9	5	5	6	6	-26	+ 28
One-Station Unit Training	19	10	9	9	10	-49	+ 10
Total	-	8	24	30	28	-	+ 19

Note: Calculations are affected by rounding.

Overall, training loads increase by over 25,000 from FY 1979 to FY 1981. The most notable increases are in initial enlisted entry training (e.g., recruit, One-Station Unit Training (OSUT) and Initial Skill Training) and Flight Training. Initial entry training is increasing in response to the higher level of non-prior service accessions in FY 1981. From FY 1979 to FY 1981, Recruit Training and OSUT entrants increase by 44,900. Flight Training loads increase as overages of aviators from the Vietnam years decline. The increase in officer acquisition loads is tied to the higher level of new officer accessions in FY 1981.

Training loads for each of the major categories of training are discussed in detail in Chapters III through VII.

#### Funding for Individual Training

Funding required to support the training in the training load request for FY 1981 totals approximately \$8.8 billion, made up of pay and allowances for the students undergoing training, pay and allowances of military and civilian personnel in support of training, operations and maintenance costs, and training-related procurement and construction funded in FY 1981. The following table displays total training funding for each Service.

Funding of Individual Training  
by Service, FY 1981  
(\$ Millions)

<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>	<u>DOD</u>
\$3,787	\$2,337	\$567	\$2,081	\$8,771

The same funding is shown below for each of the major categories of training and for related support and travel.

Funding of Individual Training  
by Training Category, FY 1981  
(\$ Millions)

Recruit Training	\$ 736
Army One-Station Unit Training	291
Officer Acquisition Training	275
Specialized Skill Training	2,012
Flight Training	987
Professional Development Education	299
Medical Training	259
BOS and Direct Training Support	2,389
Management Headquarters	96
PCS Cost for Training	524
TDY and Reserve Component	
Pay and Allowances	905
Total	\$8,771

Note: Numbers may not add due to rounding.

Funding estimates are based on data contained in DoD's Five Year Defense Program (FYDP). This report is consistent with resource estimates in the President's budget, the backup material submitted to the Congress, the Five Year Defense Program and other internal DoD management systems.

#### Manpower for Individual Training

Individual training requires manpower to conduct and support instruction, manage military schools and training centers, maintain training bases and provide support to students, military staff members and their dependents. Chapter IX of this report provides an analysis of military and civilian manpower in individual training. Manpower in support of individual training for FY 1981, by the general functions it performs, is shown in the following table.

DoD Manpower in Support of Individual Training, FY 1981  
(End Strength, Thousands)

	Military	Civilian	Total
Training and Direct Training Support a/	91.4	19.5	110.9
Base Operating Support	32.3	37.4	69.7
Major Training Headquarters	1.9	1.9	3.7
Total	125.7	58.7	184.4

a/ Includes instructors, instructional support, school/training center administration, student supervision.

The estimates for supporting manpower in this year's report are based on FYDP data. Manpower in support of individual training is slightly higher in FY 1981 than in FY 1979. This is shown in the following table.

Trends, Manpower in Support of Training, FY 1977-81  
(Combined Military and Civilian End Strengths, Thousands)

	FY 77	FY 79	FY 80	FY 81	Percent Change	
					FY 77-81	FY 79-81
Training and Direct Training Support	130	104	110	111	-15	+ 7
Base Operating Support	81	75	71	70	-14	- 7
Major Training Headquarters					-	+ 3
Total	215	182	184	184	-14	+ 1

Training workloads -- that is, all students trained including DoD military students, foreign students and students from other U.S. agencies -- have increased as the following table shows.

Training Workloads, FY 1977-81  
(Thousands)

					<u>Percent Changes</u>	
FY 77	FY 79	FY 80	FY 81	FY 77-81		FY 79-81
238	221	244	244	+ 3		+ 10

The modest increase in training manpower with the significant increase in training workload shows a productivity improvement in the Service training establishments. This is consistent with DoD's general emphasis on increased efficiency in support areas.

Other Training Improvements

In addition to improving the productivity of manpower in support of training, efforts are continuing to make individual training more efficient and effective.

Reducing the amount of formal training, where this can be done with an acceptable effect on the quality of training and force readiness, is equally as important as reducing training staff manpower, since military students must be paid and supported.

For example, the Army is continuing to save training time by the use of One-Station Unit Training (OSUT) in certain high-density skills. By combining Recruit and Initial Skill Training into single condensed courses, the Army is saving three to four weeks in training infantrymen. The Air Force is shortening the average length of Initial Skill Training courses.

In one of the most important applications of modern technology to training, the Services are continuing to save flying time and costs and improve training quality through the procurement and use of flight simulators.

The Necessity for Good Training

The objective of individual training is to provide the operational forces with personnel adequately trained to assume jobs in military units. Without effective training and education programs, the operational forces would be manned with personnel who are less than fully qualified for their jobs. Since the nation cannot predict when or where war may break out or count on an extended period for mobilization, we must have effective individual training to assure that our operational units are capable of carrying out national security missions in peace or war.

MILITARY  
MANPOWER  
TRAINING  
REPORT  
FOR FY 1981

DEPARTMENT OF DEFENSE  
March 1980

Prepared by  
Office of the Assistant Secretary of Defense  
(Manpower, Reserve Affairs and Logistics)

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## INTRODUCTION

### Training Requirements and Manpower Requirements

Requirements for training and education of military personnel are derived ultimately from basic national security objectives. This Report, the Report of the Secretary of Defense to the Congress on the FY 1981 Budget, and the Defense Manpower Requirements Report, describe the progression from national security objectives to training load requirements. The Report of the Secretary of Defense explains the relationship between the threat and the forces designed to cope with the threat. The Manpower Requirements Report relates these forces to the requirement for trained manpower to man the forces. The Military Manpower Training Report ~~takes as a starting point~~, the requirement for trained military manpower, described in the Manpower Requirements Report. It then describes how these requirements relate to the demand placed on the military training establishment to supply this trained manpower, and how this demand leads to the DoD request for military student training load authorizations for each component of the Military Services. The Manpower Requirements Report and this Report are mutually supportive; however, the data in the two reports are not interchangeable or directly comparable. The principal reason for this difference is that the main focus of the Manpower Requirements Report is upon requested strength on the last day of fiscal years (that is, end strength), whereas the main focus of this Military Manpower Training Report is upon requested student loads, a concept more comparable to average strength, or man-years, than to end strength.

### Definition of "Individual Training and Education"

This report addresses the "individual training and education" activities of the Department of Defense. These involve the training of individual military members in formal courses conducted by organizations whose predominant mission is training; this training is to be differentiated from training activities conducted by operational units incidental to their primary combat, combat support, or combat service support missions. "Force support training," the training of organized crews and units for the performance of specific missions, is not included in the training loads discussed in this report, but is discussed in the Manpower Requirements Report. In certain categories of training, on-the-job training (OJT) in units supplements or substitutes to some extent for all or part of formal course training requirements; OJT is also not included in the training loads discussed in this Report.

The purpose of individual training and education is to give the individual Service member the skills and knowledge that will qualify him or her to perform effectively in subsequent assignments as a member of

an operational military organization. "Individual training and education" includes all formal military and technical training and professional education conducted under centralized control, generally under the supervision of a Service training command or similar organization. The trainees and students undergoing the training or education addressed in the report include the following categories of personnel:

1. Active Force: officers, enlisted personnel, and Service Academy cadets and midshipmen.
2. Reserve Components: officers and enlisted members on active duty for training in formal school courses.

Training of some civilian students, prior to their entry into the Services, in such programs as ROTC, is also discussed in the report. However, training loads are properly requested only for training and education of personnel received while they are in active military status.

In general, the training discussed in this report is conducted under Major Defense Program VIII, "Training, Medical and Other General Personnel Activities," as presented in the Defense budget. Exceptions to these general rules are pointed out, where appropriate, in the body of the report.

Personnel undergoing individual training and education are classified, for manpower accounting purposes, as either trainees, students, or cadets, unless they are undergoing training while on temporary duty or temporary additional duty from their unit of assignment, or unless they are being trained while en route to new stations as transients. The term "trainees" is generally used for all enlisted personnel in Recruit Training and Initial Skill Training. "Cadets" (or "midshipmen" in the case of the Naval Academy) are members being educated at one of the Service Academies. All others receiving individual training and education are identified as "students". The distinction is not important for the purposes of this report, and the term "student" will be used where appropriate to describe members of all three classifications as well as temporary duty and transient personnel being trained.

The term "training" generally refers to instruction in military subjects either at a basic level, as in Recruit Training, or in a military or job-related technical specialty, such as pilot training or training in radar repair. "Education" generally refers to study either in more advanced subjects or in military subjects which apply to an entire Service or to the broad mission of national security, as, for example, the curriculum at the National War College. The term "training" will be used in this Report to refer to individual training and education as a whole.

## FY 1981 Training Report and the FY 1981 Budget

It is important to emphasize that this Report, while consistent with the Department of Defense Budget for FY 1981, differs in structure from the budget justification in two major respects. Budget justifications are focused on explaining how, by whom, and why money is to be spent; budgets for training and their justifications, therefore, are prepared by the Service which conducts the training programs and must obtain funds to train personnel from other Services in addition to its own. By contrast, this Report details and emphasizes the training loads of the components of the parent Service whose members are undergoing the training, and deals in less detail with resources and funds required by the Service which conducts the training. For example, Navy personnel being trained by the Air Force are treated in this Report as part of the Navy military student training load, since they are being trained to fill Navy requirements. However, in budget documents, funds to conduct training for these students, who are a part of the Air Force training workload, are included in Air Force appropriation requests.

### Definitions of Major Training Categories

The portion of this Report which discusses training loads in detail is organized into five chapters (Chapters III through VII), each of which addresses one of the major categories of training. These major categories are briefly defined below. Each chapter will more fully describe the training category and its sub-categories, the requested training loads, and the training methodology.

Recruit Training includes the basic introductory physical conditioning, military, and indoctrination training given to all new enlisted entrants in each of the Services. One-Station Unit Training (OSUT) is an Army training program which meets the training objectives of both Recruit and Specialized Skill Training in certain skills through a single course for new Service entrants which is conducted by a single training unit. Since it includes elements of two categories of training, it is treated separately in this Report.

Officer Acquisition Training, sometimes called pre-commissioning training, includes all types of education and training leading to a commission in one of the Services, such as the programs of the Service Academies and officer candidate schools. Students not in active military status, such as Reserve Officer Training Corps students, are excluded from requested loads in this Report.

Specialized Skill Training provides officers and enlisted personnel with new or higher levels of skill in military specialties to match specific job requirements.

This category includes Army Advanced Individual Training and Navy Apprenticeship Training. Certain flight-related training, such as

training of air traffic controllers and some aircraft mechanics, and survival training in the Air Force, is reported under Specialized Skill Training. None of the officer acquisition programs are included in Specialized Skill Training.

Flight Training provides the individual flying skills needed by pilots, navigators, and naval flight officers to permit them to function effectively upon their assignment to operational mission units. The Service undergraduate flight training programs culminate in an officer, or an Army warrant officer, receiving "wings" and being categorized as a "designated" or "rated" officer.

The undergraduate programs do not include the major formal advanced flight training programs. Training conducted by Service advanced flight training organizations is not considered individual training and is therefore beyond the scope of this Report.

Professional Development Education includes educational courses conducted at the higher-level Service schools or at civilian institutions to broaden the outlook and knowledge of senior military personnel or to impart knowledge in advanced academic disciplines to meet Service requirements. Training of this type is required to prepare individuals for progressively more demanding assignments, particularly for higher command and staff positions. Programs include undergraduate and graduate education and other courses not leading to a degree.

Enlisted leadership training for senior non-commissioned officers is included in Professional Development Education rather than in Specialized Skill Training to recognize its broad professional content. However, Navy leadership training, which is given to all grades of petty officers, is included in Specialized Skill Training, as is the rest of NCO training for more junior personnel conducted by the other Services.

#### Determining Training Requirements and Training Load

The amount and type of training to be conducted in the Department of Defense is the product of a series of calculations which is described in Appendix A to this Report.

In brief, the process begins with the determination of the requirement for military personnel with specific skills to fill positions in the approved or projected force. The requirement for trained manpower must then be measured against the available inventory of trained personnel projected at various points in the future. This comparison, made for each military skill and skill level, establishes the need for the training of personnel, on a phased basis, to fill current and projected skill shortages. The requirement for the training of personnel on a schedule calculated to maintain the skill inventory becomes the workload of the Service training establishments. It is measured in terms of the average military training student load, or "training load". The training load

for a given period is not only a measure of the amount of training to be accomplished; but, adjusted to take account of the Service conducting the training, it becomes a "workload" and thus it is also a basis for establishing the requirement for resources (manpower, funds, materiel and facilities) needed to support the training to be conducted by a Service.

Conceptually, the training load for a given period is the average student strength for the period, and approximates man-years. The total training load is the sum of the loads for all the included individual courses. Training loads for individual courses are determined by the following factors:

1. The length of the training course.
2. The desired number of graduates, or output, of the course.
3. The number of entrants, or inputs, into the course required to obtain the desired output. This, in turn, depends on the pattern of attrition, or failures of entrants to graduate, for the course.

If attrition occurs at a constant rate during a course, the training load is computed by the following formula:

$$\frac{\text{Entrants} + \text{Graduates}}{2} \times \begin{matrix} \text{Course Length (expressed} \\ \text{as a fraction of a year)} \end{matrix} = \text{Load}$$

This is the basic method for computing the training loads discussed in this report. However, if attrition does not occur at a uniform rate, as is frequently the case, and the rate and phasing can be specified, more complex formulas and computer simulations are used to estimate training loads.

#### Accuracy in Projecting Training Loads

In accordance with law, training load authorizations must be requested well in advance of the period when the training is actually conducted. This year, for example, in addition to the more refined estimates of loads needed for FY 1981, load authorizations must be requested for the fiscal year which begins more than a year after the request is submitted -- that is, loads for FY 1982, beginning October 1, 1981, must be requested in the spring of 1980. This statutory requirement implies the capability to predict future training loads with precision. In actuality, while loads for some long-leadtime programs, such as the Service Academies, can be predicted with considerable accuracy, there are many uncertainties in projecting training loads. Some of the causes of uncertainty are:

1. Unpredictability of individual decisions to enlist or re-enlist; this factor may lead to unanticipated changes in the skill

inventory, requiring changes in the composition or size of training loads, or to shifts of portions of the training load from one fiscal period to the following period.

2. Unanticipated changes in force structure, requiring a readjustment of the skill inventory and the mix of courses in the training load.

3. Changes in attrition rates and patterns, causing unprogrammed fluctuations in training rates and loads.

Through forecasting training needs as far as possible into the future and continuous review and adjustment of training inputs and loads, the Services are able to adapt the training system to changing conditions. However, it should be clear that extended projections are subject to error; adjustments are inevitable and, in fact, necessary for good management.

#### Training Load Request by Component and Category

The tables on the following two pages display in category detail the requested training loads for FY 1981 and FY 1982. The loads for each period are displayed by component and by each of the major categories of training.

**Military Training Student Loads, Fiscal Year 1981, By Component and Major Training Category**

	Recruit Training	One-Station Unit Training	Officer Acquisition Training	Specialized Skill Training	Professional Development Education		<u>Total</u>
					<u>Flight Training</u>	<u>Education</u>	
<b>Active Forces</b>							
Army	8,205	18,890	4,745	35,370	1,389	3,419	72,018
Navy	15,499	-	5,993	39,850	1,399	1,804	64,545
Marine Corps	8,426	-	295	11,308	705	659	21,393
Air Force	9,780	-	6,444	23,908	2,653	3,453	46,238
Sub-Total	<u>41,910</u>	<u>18,890</u>	<u>17,477</u>	<u>110,436</u>	<u>6,146</u>	<u>9,335</u>	<u>204,194</u>
<b>Reserve Components</b>							
Army National Guard	2,662	6,839	48	4,326	93	48	14,016
Army Reserve	2,901	2,468	2	3,874	48	55	9,348
Naval Reserve	317	-	40	582	-	14	953
Marine Corps Reserve	1,674	-	346	1,109	-	15	3,144
Air National Guard	774	-	-	991	130	35	1,930
Air Force Reserve	<u>390</u>	<u>-</u>	<u>7</u>	<u>619</u>	<u>75</u>	<u>48</u>	<u>1,139</u>
Sub-Total	8,718	9,307	443	11,501	346	215	30,530
<b>Total</b>	<b>50,628</b>	<b>28,197</b>	<b>17,937</b>	<b>121,937</b>	<b>6,492</b>	<b>9,550</b>	<b>234,724</b>

Military Training Student Loads, Fiscal Year 1982, By Component and Major Training Category

	<u>Recruit Training</u>	<u>One-Station Unit Training</u>	<u>Officer Acquisition Training</u>	<u>Specialized Skill Training</u>	<u>Flight Training</u>	<u>Professional Development Education</u>	<u>Total</u>
<u>Active Forces</u>							
Army	7,776	19,162	4,745	34,881	1,389	3,656	71,609
Navy	14,474	-	6,011	38,980	1,445	1,901	62,811
Marine Corps	8,401	-	279	11,009	705	659	21,053
Air Force	10,127	-	6,315	24,645	2,693	3,588	47,368
Sub-Total	<u>40,778</u>	<u>19,162</u>	<u>17,350</u>	<u>109,515</u>	<u>6,232</u>	<u>9,804</u>	<u>202,841</u>
<u>Reserve Components</u>							
Army National Guard	2,665	6,830	48	4,319	93	48	14,003
Army Reserve	2,925	2,528	2	3,871	48	55	9,429
Naval Reserve	321	-	40	582	-	14	957
Marine Corps Reserve	1,682	-	346	1,109	-	15	3,152
Air National Guard	774	-	-	991	124	35	1,924
Air Force Reserve	<u>390</u>	<u>-</u>	<u>7</u>	<u>617</u>	<u>74</u>	<u>48</u>	<u>1,136</u>
Sub-Total	<u>8,757</u>	<u>9,358</u>	<u>443</u>	<u>11,489</u>	<u>339</u>	<u>215</u>	<u>30,601</u>
Total	49,535	28,520	17,793	121,004	6,571	10,019	233,442

## TRAINING PATTERNS

General Description

The development of service members through formal training and education and practical experience follows a generally common pattern. The new service member (or, in the case of some Officer Acquisition Training, the prospective service member) first receives training designed to develop the basic attributes of all members of his or her Service. In most cases, the graduate of the initial training is then taught the skills required for a military job at the lowest skill level. Those service members who do not remain beyond their initial enlistments or obligated terms of service do not, in most cases, receive additional formal training. Those who remain, the career members, will further develop their military knowledge and skills through experience in military jobs, interspersed, as required, with training or education needed to prepare them for more responsible positions. During any part of their terms of service, military personnel are also encouraged, as their military assignments may permit, to improve their educational attainments, to the benefit of themselves and their Services through off-duty and voluntary education programs which may be available. This combination of job experience, training and education is essential to the development of a military force which is capable of carrying out the national security mission.

Enlisted personnel usually work in relatively specialized skill fields, whereas the duties of officers, particularly of those in the career force, call for broader expertise. For these reasons, the training and education patterns of officers and enlisted personnel differ, and will be discussed separately in the following sections of this chapter.

Officer Training Patterns

Each Service has developed career patterns to prepare its officers to assume progressively higher command and staff responsibilities. These career patterns are composed of operational assignments, during which the officer learns his profession through experience, and periodic individual training and education, which provide the officer with knowledge and skills needed for progressively more demanding subsequent assignments.

Officer training and education can be divided generally into three types. First, each Service maintains a system of professional military education which is progressive in nature. This education is related more to the increasing responsibilities associated with career progression to more senior grades than to the individual's current assignment or specialty. It is primarily the study of officership and the command and staff knowledge required of all professionals. The second type of

education and training includes the many specific skill-producing courses that are conducted to enable the officer to perform immediately upon assignment to a specialized or functional area. These courses vary in length from a few days to several months. They present, for the most part, strictly job-oriented training, and are often in the nature of orientation or refresher courses. Third, the Services also provide selected officers with advanced academic education, either in-house or at civilian institutions, to meet specific requirements for officers educated in technical, scientific, engineering, and managerial fields. Officers also participate in a variety of other educational programs, many on a part-time basis, usually with the student sharing in the cost.

Training and education for career officers, involving one or more of the types of training and education described above, follow the general patterns outlined in the following paragraphs. The patterns vary among the Services to some extent, and not all officers will participate in all of the schooling described. The number of officers participating in schooling becomes progressively smaller, and participation more selective and demanding, as officers move through their careers.

Non-career officers (those who may be expected to serve only an initial tour of active duty) generally receive training only at the entry level. In some cases, they may receive skill-oriented courses such as pilot training, which is lengthy and results in a commensurately longer active duty obligation, or training as maintenance or communications officers.

Entry Level Training. Upon entry, the young officer's initial training is Service-oriented and intended to prepare him for duties at the lowest operational level -- company, squadron, or ship. The newly commissioned Army officer will attend a basic course conducted by the particular branch of the Army to which he is assigned, such as infantry, armor or artillery. A Navy ensign is usually assigned to school training based on his warfare specialty. The new Marine officer attends the Officer Basic School. A newly commissioned officer in the Air Force may go to Flight Training or training in a technical specialty.

Developmental Training. After some operational experience, the career officer requires further schooling to prepare him for service at the next level -- for example, as a unit commander or a headquarters staff officer. In the Army, this entails a return to his branch school for more advanced training. An Air Force officer could be selected for the Squadron Officer School. A Marine Corps officer would normally attend the Amphibious Warfare Course. Navy officers at this stage in their careers may attend a school in a specialty appropriate to their future assignments.

To satisfy Service requirements and as a further step in professional development, some officers are selected for participation in an advanced academic educational program at a civilian institution or one of the two Service technical institutes, the Naval Postgraduate School and the Air Force Institute of Technology.

Intermediate Service Schools. As the officer progresses (between six and 16 years of service, depending on Service criteria) he is ready for the next, or command and staff, level of professional schooling in preparation for assuming higher responsibilities. Attendance is competitive, as not all officers are selected to attend. Each Service has such a course; the Armed Forces Staff College, a joint school, is also conducted at this level. Each Service has its own emphasis with regard to this schooling because of its pattern of missions; these differences are reflected in the school curricula.

Senior Service Schools. Subsequent to the intermediate years, little technical training is provided. The final level of professional military education is that of the Senior Service Schools -- the war colleges -- for which attendance is highly selective. The Army, Navy, and Air Force each has a war college. In addition, there is the National Defense University, consisting of the National War College and the Industrial College of the Armed Forces. Officers graduating from the Senior Service Schools have the academic foundation required for command and staff positions at the highest level. The different curricula of these schools reflect the differing patterns of missions among the Services.

#### Enlisted Training Patterns

An individual entering upon an initial enlistment is provided Recruit Training that introduces him or her to military life. Following this indoctrination training, an individual will follow one of three possible avenues:

1. Initial Skill Training, which prepares the enlistee for an initial duty assignment, or
2. Direct duty assignment on the basis of a skill already acquired in civilian life, or
3. Direct assignment to first duty unit for on-the-job training (OJT).

The Army One-Station Unit Training (OSUT) program is a variation of the first of these three avenues, since it combines Recruit and Initial Skill Training into a single course, followed by assignment to an operational unit. About 55 percent of Active Army entrants to initial enlisted training will be trained under the OSUT program in FY 1981.

The expected distribution of Active Recruit Training graduates in FY 1981 is as follows:

Disposition of Active Recruit Training Graduates in FY 1981

	Army	Navy a/	Marine Corps b/	Air Force
To Initial Skill Training	98%	100%	80%	95%
To Duty Assignment (Civilian-Acquired Skill)	1%	*	*	1%
To Duty Assignment (On-the-Job Training)	1%	-	20%	4%
	100%	100%	100%	100%

\*Less than 1/2 percent.

- a/ 31% of Navy Recruit Training graduates attend short "Apprenticeship Training" courses (carried under Initial Skill Training in this report) as a preliminary to further training on the job.
- b/ This distribution is facilitated, in part, by the fact that the Marine Corps has the longest Recruit Training course of any Service.

As the table indicates, most enlisted personnel receive formal Initial Skill Training to provide them with a basic military skill. The combination of Recruit Training and Initial Skill Training (or Army One-Station Unit Training) is the foundation of the development of enlisted personnel, because it turns civilians into service members who are qualified to fill positions in military units.

Other than for on-the-job training in the work environment, enlisted personnel normally receive no further formal training beyond the training previously described during their initial enlistments. The major exception is Navy training, conducted by fleet training centers, in such shipboard duties as firefighting.

Subsequent to reenlistment, an individual may be selected for attendance at a journeyman level course in his specific occupational area. This training emphasizes the appropriate military applications for the skills being taught. In most cases, however, enlisted personnel advance in their skill areas through experience gained on the job and without extensive additional formal training. Some enlisted personnel are given the opportunity to attend NCO professional development training programs which prepare them for increased supervisory and leadership responsibilities.

Normally, few enlisted personnel attend regularly programmed specialized courses after mid-career. There are instances, of course, where new equipment or systems are introduced into a Service, and senior level enlisted personnel are formally trained in operation and maintenance techniques. Selected senior enlisted personnel attend schools, such as the Army's Sergeants Major Academy, which are, on the NCO level, similar in purpose to the Intermediate and Senior Service Schools in the officer education system.

### III

## RECRUIT TRAINING AND ARMY ONE-STATION UNIT TRAINING

### General Description

Recruit Training is the basic introductory and indoctrination training given to enlisted personnel of each Service upon their initial entry into military service. Recruit Training provides an orderly transition from civilian to military life, motivation to become a dedicated and productive member of the service, and instruction in the basic skills which are required by all members of the Military Service involved. Training in each of the Services emphasizes discipline, observance of military rules, social conduct, physical conditioning and the building of self-confidence and pride in being a member of the service. Beyond these common objectives, Recruit Training in each Service is designed to meet the particular training requirements of that Service which are a reflection of the Service mission. The graduate of Recruit Training has the basic knowledge and skills required to qualify him or her, after formal or on-the-job training in a particular skill, for service in an operational unit of the parent Service.

Army One-Station Unit Training (OSUT) is unique in that it combines Recruit Training and Initial Skill Training in certain skills into a single, continuous course conducted by a single training unit. OSUT therefore includes elements of two major training categories; consequently, it is treated separately at the end of this chapter. OSUT training loads are not included within the Recruit Training loads displayed in this chapter.

### Recruit Training Load

The training loads for FY 1973 through FY 1981 for each component of each Military Service are in the table on the following page.

RECRUIT TRAINING LOADS, FY 1973-81<sup>a/</sup>

<u>Service Component</u>	FY 73	FY 74	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81
<b>b/</b>									
<u>Army</u>									
Active	39,119	26,088	25,902	23,611	20,823	12,957	9,141	9,530	8,205
Nat'l Guard	5,108	3,272	3,283	3,864	4,140	3,884	2,707	2,752	2,662
Reserve	1,861	751	1,847	1,548	1,529	1,620	2,062	2,389	2,901
<u>Navy</u>									
Active	17,578	16,252	18,569	17,642	17,407	14,199	12,440	15,346	15,499
Reserve	436	386	562	281	338	361	294	273	317
<u>Marine Corps</u>									
Active	15,806	12,409	14,112	12,350	11,288	9,652	9,859	9,053	8,426
Reserve	2,308	905	1,717	1,694	1,801	1,935	1,446	1,618	1,674
<u>Air Force</u>									
Active	11,561	9,797	9,720	9,348	8,666	8,151	7,712	9,075	9,780
Nat'l Guard	510	228	390	475	404	459	426	705	774
Reserve	180	162	298	280	291	301	249	355	390
<u>DoD</u>									
Active	84,064	64,546	68,303	62,951	58,184	44,959	39,152	43,004	41,910
Gd/Res Tot	10,403	5,704	8,097	8,142	8,503	8,560	7,184	8,092	8,718
DoD Total	94,467	70,250	76,400	71,093	66,687	53,519	46,336	51,096	50,628

a/ In this table and in all subsequent tables in this report, training loads for the years prior to and including FY 1979 data are actual, FY 1980 and subsequent year data are estimated.

b/ Data does not include Army One-Station Unit Training Loads.

The changes in Recruit Training loads from FY 1979 to FY 1981 are primarily the result of changes in the number of non-prior service accessions. The decrease in Army loads reflects the expanded use of One-Station Unit Training in FY 1981 compared to FY 1979. The increases in Navy and Air Force loads reflect the higher levels of non-prior service accessions. The Marine Corps load decrease from FY 1979 to FY 1981 is due to management action to reduce the administrative time used to form recruit training platoons. This action reduces the average time in training for new entrants.

#### Recruit Training

The following table displays for Recruit Training the average training loads for each year from FY 1979 to 1981 and, for FY 1981, the number of entrants (input) and number of graduates (output). Data are shown separately for each component of each Service.

Training Inputs, Outputs, Loads, Recruit Training  
FY 1979 - 1981

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>Input</u>	<u>FY 81 Output</u>	<u>Load</u>
<u>Army</u>					
Active	9,141	9,530	61,480	55,738	8,205
Reserve	2,062	2,389	22,016	20,208	2,901
Natl Guard	2,707	2,752	19,959	18,079	2,662
<u>Navy</u>					
Active	12,440	15,346	94,281	91,200	15,499
Reserve	294	273	2,008	1,780	317
<u>Marine Corps</u>					
Active	9,859	9,053	40,384	36,577	8,426
Reserve	1,446	1,618	8,000	6,965	1,674
<u>Air Force</u>					
Active	7,712	9,075	79,000	73,470	9,780
Reserve	249	355	3,372	3,029	390
Natl Guard	426	705	6,551	6,128	774
<u>DoD</u>					
Active	39,152	43,004	275,145	256,985	41,910
Res/Gd Tot	7,184	8,092	61,906	56,189	8,718
DoD Total	46,336	51,096	337,051	313,174	50,628

Each of the services conducts training for women recruits which is similar in concept to Recruit Training for males. The Army and Air Force have adopted integrated male and female recruit training. The training syllabi are essentially the same for males and females. In the Navy and Marine Corps, male and female recruit training is collocated but not integrated. The major difference between these male and female courses is that women recruits generally receive less training in weapons use and other combat oriented skills. The de-emphasis on combat skills in the Marine Corps causes the length of training for women to be somewhat shorter.

#### Rationale for Recruit Training

The underlying philosophy of Recruit Training in each of the Services is that the demands of military service are fundamentally different from those of civilian life. Military service requires a high level of discipline and physical fitness, a homogeneity of outlook, and an ability to live and work as part of a highly structured organization. There are few parallels in civilian society to the demands of military service. Each recruit, therefore, must be transformed into a member of the military team in order to function effectively in the military environment. The attitudes, habits, and basic skills formed in Recruit Training are the foundation of a cohesive military organization. Later training provides the skills and knowledge needed for specific jobs; Recruit Training shapes the civilian entrant into a dedicated member of his or her Military Service with the potential for further development.

The major determinants of Recruit Training loads are the total number of people entering service who must receive Recruit Training (input), the length of the training course, and projected patterns of attrition. Course length and attrition are discussed later in this chapter. The following two sections discuss inputs: first, inputs of active duty personnel, and second, inputs of members of the Reserve Components on active duty for initial training.

#### Active Duty Input

The annual recruiting objective for active duty enlistees without prior military service is a function of the following factors:

1. The projected requirement for trained enlisted personnel.
2. Current enlisted trained strengths.
3. Number of enlisted personnel currently in training.
4. Projected enlisted losses through separations or other reasons (e.g., desertion, death, acceptance of a commission, etc.).
5. Projected prior-service enlistments -- that is, the return from civilian life of former service members.

"Trained strength" is the number of personnel required to fill "structure" spaces (i.e., positions in military organizations which require specific grades and skills) and individual "pipeline" spaces, such as transients en route between assignments. The Defense Manpower Requirements Report contains a full discussion of how military manpower requirements are determined. The projected trained strength requirement is compared with the projected trained strength inventory to forecast future skill and strength imbalances. Future shortages which are not expected to be satisfied either by prior-service enlistees or service members currently in skill training courses determine the training output needed to man the force with trained personnel. To determine the necessary input to achieve this output, allowance must be made for course attrition, the number of students entering a course of instruction who fail to complete it. The total input requirement must, therefore, be increased to compensate for expected attrition losses.

The optimal leveling of monthly inputs to obtain the most efficient use of training staff personnel and training facilities is a continuing goal. However, the phasing of inputs must at times be varied in order to take advantage of the best recruiting periods for maintaining quality and quantity.

Historically, June through September and January have been the most productive recruiting months, reflecting behavioral patterns which are related to the civilian academic calendar. Enlistments increase (1) shortly after high school graduation, (2) when peers return to school in the fall, and (3) after the results of the first term academic work are announced.

The Services must accept most prospective enlistees at the time they are ready to enter service. Requiring enlistees to enter military service in phase with requirements and on an even-flow basis would result in the loss of many potential enlistees to other sources of employment. Accepting enlistees as they become available, however, requires a training structure capable of accommodating peak surges of enlistments.

#### Reserve Component Input

Persons enlisting in the National Guard and Reserve forces without active duty experience require the same Recruit Training as active duty enlistees, and for the same reasons. Recruit Training loads for the Reserve Components are based on the same factors as active force loads. Guard and Reserve trainees, while in Recruit Training, are mingled with active duty trainees in units so that their training is identical.

Reserve Component recruits form a significant part of the workload of the active Recruit Training establishment. In FY 1981, 17 percent of DoD Recruit Training loads, and 40 percent of Army's, are attributable to Guard and Reserve trainees.

The planning considerations for Reserve Component personnel are essentially similar to those for the active force; detailed phasing of this training is complicated, however, by the additional consideration of civilian employment or school commitments for these personnel. For this reason, a pool of personnel who have been enlisted but who have not yet been able to attend entry training is normal. It is important that this backlog is kept within a reasonable size.

#### Course Length and Course Content

Enlisted training loads depend not only upon the numbers of entrants but also on the extent of skills required of entering enlisted personnel by each Service. Enlisted personnel attain those skills in Recruit Training and in Specialized Skill Training, which is discussed in a subsequent chapter. Thus, Recruit Training course lengths are determined in part by how much of the required training is to be provided during the Recruit Training phase and how much is to be deferred to later training. The four Services, because of differences in their missions, take somewhat different approaches in establishing the content and length of their Recruit Training courses.

Recruit Training in each of the Services covers four areas: (1) some processing and testing; (2) introduction into Service life; (3) instruction in military courtesy, discipline, and hygiene; and (4) fundamental military-related training involving physical fitness, military drill, and self-defense. In addition, each Service provides training in military skills which should be possessed by all, or almost all, members of that Service. The degree to which these Service-wide required skills exist differs widely among the Services. This factor accounts for most of the differences in course content and, therefore, course length. The variance in quality of enlistees among the Services also has a bearing on course length; recruits with lower intelligence and lesser amenability to discipline require a longer training period to achieve training objectives.

The length of the standard Recruit Training course in each Service is shown in the following table:

#### Recruit Training Course Length FY 1981 (Weeks)

<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>
7	7.7	10.3	6

The Air Force accomplishes all Recruit Training in six weeks. Course content concentrates on indoctrination subjects. Relatively little training in Service-wide skills is provided, since there are few common skills needed by all Air Force enlisted personnel.

In addition to subjects oriented toward indoctrinating recruits to military life, the Navy course includes phases designed to prepare them for conditions in a fleet environment. The Navy must be sure that recruits learn to live, work, and fight in restricted space as they will find on board ship, often close to complex machinery and weapons.

Army and Marine Corps Recruit Training differ from the Air Force and Navy programs because all recruits are given intensive physical conditioning and instruction in basic ground combat skills, including the use of individual weapons. These Services subscribe to the view that all male enlisted personnel must achieve a basic level of qualification in ground combat skills, and their Recruit Training curricula both provide a common core of training in these skills.

The average length of time spent in recruit status in any of the Services may be longer than the standard course lengths discussed above. Some recruits fall behind their peers because of illness. Others require remedial training. If this cannot be accomplished by additional instructional hours the recruit may be sent to a special training unit or recycled to a following class to repeat a portion of the course.

The common objective of transforming a civilian into a disciplined service member tends to set a floor under the length of Recruit Training in each of the Services. Relatively few recruits have had much experience with life in a disciplined environment, been separated from their families and friends, or subjected to the stresses imposed by military life. Compensating for these factors takes not only training but also time. A minimum of six weeks in Recruit Training appears necessary to accomplish this objective alone in any of the Services. Greater amounts of time are required for those Services which must provide extensive training in required common skills.

#### Attrition in Recruit Training

A final factor in the computation of loads is the projection of the rate and timing of attrition. Recruits may fail to complete training for medical reasons, inability to absorb the instruction, lack of motivation, disciplinary problems, or a variety of administrative causes, such as discharge for fraudulent enlistment or family hardship. The following table shows projected attrition losses for FY 1981. Recruit Training input figures are shown for comparison.

Recruit Training Input and Attrition Projections, FY 1981<sup>a/</sup>  
(Active and Reserve Combined)  
(Thousands)

	<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>
Input	103.5	96.3	48.4	88.9
Attrition Losses	8.5	9.6	5.9	6.2
Percent Attrition	8.2	10.0	12.2	7.0

a/ Figures include both active force and Reserve Component members.

The timing of attrition varies from case to case. In the case of slow learners or individuals who have difficulty in adjusting to military life, trainees usually are recycled or given special instruction; those who do not respond adequately may not become attrition losses until late in the course.

Army One-Station Unit Training

The Army's One-Station Unit Training (OSUT) program combines Recruit Training and Initial Skill Training for certain skills into a single continuous course. Consequently, this report treats OSUT separately rather than arbitrarily breaking it into two segments.

OSUT loads for FY 1976 through 1981 are shown in the following table.

OSUT Training Loads, FY 1976-81

<u>Service Component</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>
<b>Army</b>						
Active	1,483	6,660	9,252	16,944	21,970	18,890
Reserve	43	212	546	1,861	1,972	2,468
Natl Guard	426	1,553	2,559	4,973	5,956	6,839
Res/Gd Tot	469	1,765	3,105	6,834	7,928	9,307
DoD Total	1,952	8,425	12,357	23,778	29,898	28,197

The following table displays OSUT inputs and outputs, as well as loads, for FY 1981.

Training Inputs, Outputs and Loads, OSUT, FY 1981

<u>Service Component</u>	<u>Inputs</u>	<u>Outputs</u>	<u>Loads</u>
<b>Army</b>			
Active	83,196	71,021	18,890
Reserve	10,844	9,569	2,468
Natl Guard	<u>32,469</u>	<u>28,764</u>	<u>6,839</u>
Res/Gd Total	<u>43,313</u>	<u>38,333</u>	<u>9,307</u>
DoD Total	126,509	109,354	28,197

In FY 1976, less than five percent of Army non-prior service entrants were trained under OSUT. In FY 1981, about 55 percent of Army entrants to initial enlisted training will be trained by this method.

A major advantage is that OSUT requires less training time than the separate Recruit Training and Initial Skill Training courses which it replaces. The following table shows training time for current OSUT courses:

OSUT Training Time

<u>Skill Area</u>	<u>Training Time (Weeks)</u>
Infantry	12
Artillery	13
Armor	13
Engineer	12
Signal	13
Military Police	14

The time required to complete Recruit Training and the Initial Skill Training courses in these skills previously averaged about 16 weeks, including the time required to move the trainee from one training organization to another. The shorter OSUT course lengths thus provide a large savings in trainee manyears and, consequently, in trainee pay, allowances and support costs. These savings are permitted by the reduction in the statutory training time a non-prior service enlistee must receive before deployment overseas from four months to 12 weeks. The Army's extensive tests of OSUT indicate that the quality of OSUT graduates is generally as good as the quality of personnel trained under the longer two-course training system.

## OFFICER ACQUISITION TRAINING

General Description

Officer Acquisition Training consists of training and education programs leading to a commission in one of the Military Services. These programs fulfill the need both for junior officer entrants into the career force and for non-career junior officers in the force structure. Officer Acquisition Training programs produce officers for both the active forces and the Reserve Components. This category includes Officer Candidate School programs and Other Enlisted Commissioning Programs and Health Professions Acquisition Programs.

Training loads for Officer Acquisition Training are shown in the table on the following page.

Total Officer Acquisition Training Loads, FY 1973-81

<u>Service Component</u>	<u>FY 73</u>	<u>FY 74</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>
<u>Army</u>									
Active	5,780	5,356	5,235	5,219	4,720	4,777	4,776	4,767	4,745
Nat'l. Guard	-	-	2	15	34	46	47	48	48
Reserve	157	130	149	135	128	1	3	2	2
<u>Navy</u>									
Active	7,169	6,910	6,791	6,468	6,072	5,769	5,873	6,045	5,993
Reserve	179	108	126	100	35	30	35	40	40
<u>Marine Corps</u>									
Active	398	414	486	434	359	388	269	302	295
Reserve	271	285	319	293	301	313	309	346	346
<u>Air Force</u>									
Active	5,842	5,784	5,797	5,255	5,008	5,320	5,816	6,403	6,444
Nat'l. Guard	1	-	-	-	-	-	-	-	-
Reserve	25	20	4	2	1	2	8	7	7
<u>DoD</u>									
Active	19,189	18,464	18,309	17,376	16,159	16,254	16,734	17,517	17,477
Gd/Res Total	<u>633</u>	<u>543</u>	<u>600</u>	<u>545</u>	<u>499</u>	<u>392</u>	<u>402</u>	<u>443</u>	<u>443</u>
<b>DoD Total</b>	<b>19,822</b>	<b>19,007</b>	<b>18,909</b>	<b>17,921</b>	<b>16,658</b>	<b>16,646</b>	<b>17,136</b>	<b>17,960</b>	<b>17,920</b>

#### Excluded ROTC and Health Professions Acquisition Programs

The total loads above do not include two types of Officer Acquisition Training: the Army, Navy, and Air Force Reserve Officers Training Corps (ROTC) programs and the Armed Forces Health Professions Scholarship program. ROTC and Health Professions Scholarship students are not in active military status, whereas students who make up the training loads discussed in this report are either members of the active forces or members of the reserve components being trained on active duty by the active establishments. Although these two programs are not included in the requested training loads, they are discussed in this chapter to provide a complete account of Officer Acquisition Training. The following tables show the number of participants in these programs in the period FY 1979 through 1981.

#### Average Enrollees, ROTC Programs, FY 1979-81

<u>Service</u>	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>
Army	60,570	61,762	69,068
Navy	7,344	7,960	7,960
Air Force	16,925	19,269	20,640
DoD Total	84,839	88,991	97,688

#### Health Professions Scholarships, FY 1979-81

	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>
Army	1,536	1,850	1,850
Navy	1,460	1,575	1,575
Air Force	1,505	1,575	1,575
DoD Total	4,501	5,000	5,000

The figures shown above for Health Professions Scholarships are actuals for FY 1979; the FY 1980 and 1981 figures are those currently authorized by DoD to each Service from the total of 5,000 authorized scholarships.

Junior ROTC is a program designed to develop leadership qualities, good citizenship, and an understanding of the basic elements of national security among high school students. Despite its name, it is not an officer acquisition program, since it does not result in a commission and its participants have no military obligation whatsoever. Junior ROTC is not included within training loads covered by this report.

#### Officer Requirements and Structuring the Officer Acquisition Program

Requirements for new officers, like requirements for new enlisted personnel, are a product of the need for officers in the projected force

as compared to the projected future inventory of officers. Properly functioning programs fill the gross requirements for officer entrants for any given year, and provide an even flow of sufficient new officers to each Service to avoid the emergence of unmanageable shortages and overages by age and grade in the future. Each of the Services uses a mix of sources for new officers.

The mix of officer acquisition programs used must recognize the characteristics of each source. Some of the differing characteristics of current programs are stable input, long lead-time; flexible inputs, short lead-time; high academic quality with comprehensive military indoctrination; and high level of technical skill. Additionally, consideration must be given to each program's ability to attract applicants, the quality of the graduates, and their probable retention and attrition. These differences and others must be recognized and exploited in planning officer procurement.

The Service Academies present a long lead-time program which produces a significant proportion of highly trained career military officers.

ROTC is also a long lead-time program and provides the largest single input of officers to the active duty force, although many of these officers will leave active duty and join the reserve components. In this manner, ROTC provides officers to support the total force, both active and reserve.

Officer Candidate Schools provide the short lead-time commissioning source necessary to respond to immediate surges in officer requirements, since the program can be expanded or reduced in a relatively short period of time.

The off-campus commissioning programs, such as the Navy's Aviation Reserve Officer Candidate (AVROC) program, are long lead-time programs, and provide the student at virtually any four-year college or university the opportunity to earn a commission through summer training but without military responsibilities during the school year. Finally, Other Enlisted Commissioning Programs are long lead-time in nature, and provide a source of officers who possess specific technical skills and who have a proven high rate of retention.

In addition to these reasons for using a variety of sources to satisfy officer requirements, it is also desirable to use different sources to keep the officer corps from being restricted to a narrow segment of the national population and to provide opportunities for highly qualified enlisted personnel.

Officer Acquisition Training may be divided into six separate programs:

- Service Academies
- ROTC
- Officer Candidate Schools
- Off-Campus Commissioning Programs
- Enlisted Commissioning Programs
- Health Professions Acquisition Programs

#### Service Academies

The mission of each of the Service Academies (United States Military Academy, United States Naval Academy and United States Air Force Academy) is to meet a portion of the long-range requirement for career military officers. They provide instruction and experience to each cadet or midshipman so that he or she graduates with the knowledge and character essential to leadership and with the motivation to become a career officer. Cadets and midshipmen participate in a four-year program of academic studies and training in leadership and other military subjects. Successful completion of the specified academic and military requirements entitles the graduate to a Bachelor of Science degree and a Regular commission in one of the Military Services. Up to one-sixth of Naval Academy graduates in each year may be commissioned in the Marine Corps.

The Service Academies are distinctive among the collegiate institutions of the nation in that their curricula are specifically designed to prepare young men and women for service as professional officers. The total curriculum at each Academy is designed to develop the qualities of character, intellect, and physical competence needed by the officer who may, in the course of a full career, be called upon to perform duties ranging from leading a small combat unit to advising the highest government councils. The programs include the sciences, the humanities, and military and physical training, and form the basis for further professional development or, when required, graduate education.

The enrollment of each of the Service Academies is established by law. This fact establishes stable training loads for the Academies. Training load data for the Service Academies are shown in the following table:

Service Component	Training Inputs, Outputs, Loads, Service Academies				
	FY 1979-81				
	FY 79 Load	FY 80 Load	Input	FY 81 Output	Load
Army	4,142	4,050	1,439	962	4,053
Navy	4,295	4,318	1,328	977	4,280
Air Force	4,212	4,235	1,492	916	4,235
DoD Total	12,649	12,603	4,259	2,855	12,568

Three hundred fifty-seven women entered the Service Academies for the first time in June/July 1976 as authorized by Congress in the Defense Appropriation Authorization Act for 1976, Public Law 94-106. One hundred nineteen women accepted appointments to the Military Academy, 81 women to the Naval Academy and 157 women to the Air Force Academy. In June/July 1979, 112 women accepted appointments to the Military Academy, 90 women to the Naval Academy and 171 women to the Air Force Academy. Women are undergoing virtually the same education and training program as their male counterparts and will satisfy the same requirements for graduation.

Each of the Military Departments sponsors an Academy preparatory school. Marine Corps personnel attend the Navy school. The missions of these schools are to provide intensive instruction and guidance, in courses of instruction approximating one academic year, to selected enlisted personnel in preparation for entry to the Service Academies. Students compete for appointments by the Secretaries of the Military Departments and from other sources. The Naval Academy Preparatory School also provides instruction to candidates for the Marine Corps Enlisted Commissioning Education Program during the summer months.

The Army searches for potential cadets within the Army Reserve, and selected personnel may attend the Preparatory School. These are reflected within the data of the following table.

Training Inputs, Outputs, Loads,  
Academy Preparatory Schools, FY 1979-81

Service	FY 79 Load	FY 80 Load	Input	FY 81 Output	Load
Army	271	282	320	244	282
Navy	217	217	250	180	190
USMC	18	17	25	25	17
Air Force	183	183	255	165	183
DoD Total	689	699	850	614	672

### ROTC Programs

ROTC is a long lead-time program which is the single largest source of officers for the Armed Forces. Like the Service Academies, ROTC is used to provide a relatively constant input of officers for active duty, but ROTC also provides non-career officers as well as career officers. The program is currently conducted at 341 civilian colleges and universities throughout the nation. The Army, Navy, and Air Force each sponsor an ROTC program; up to one-sixth of the Navy graduates may be commissioned in the Marine Corps. Scholarships and subsistence allowances authorized by law, in addition to conventional recruiting and advertising methods, are used to attract qualified students. Scholarships are awarded to young men and women who exhibit potential ability and interest in fields of projected Service needs.

There are both scholarship and non-scholarship, as well as two-year and four-year, ROTC programs. The curriculum of each program is tailored to the needs of the individual Services. For example, the Navy teaches the basics of ship navigation, while the Army teaches the fundamentals of ground combat and the Air Force provides some basic instruction in aerospace history and doctrine. Each of the programs includes instruction in leadership, military customs and military history, and each program provides prospective officers with a gradual transition from the civilian environment to the military environment. Each ROTC program consists of a series of regularly scheduled academic classes throughout the school year combined with mandatory summer camps or cruises which are designed to give the student realistic military experience and a first-hand view of military life.

As noted at the beginning of this chapter, the ROTC program is not included in Service training loads because the students are not in an active military status. The following table shows the three Service ROTC programs for FY 1981.

### ROTC Programs in FY 1981

<u>Service</u>	<u>Beginning Enrollments</u>	<u>Graduates</u>	<u>Average Enrollments</u>	<u>Average Number of Scholarship Enrollees</u>
Army	70,806	5,498	69,068	6,328
Navy	8,370	1,300	7,960	5,850
Air Force	21,875	3,226	20,640	6,500
DoD Total	101,051	10,024	97,668	18,678

The FY 1979 Defense Appropriations Act tasked the Department of Defense to review the criteria for evaluating the performance of Reserve Officers

Training Corps (ROTC) units and for phasing out units which have failed to provide an adequate return for the resources invested. The Department recognized the importance of this task and has developed alternative evaluative criteria. A report of the study findings is being submitted to the Appropriations Committees of Congress.

#### Off-Campus Commissioning Programs

Officer Acquisition Training programs in which college students participate but which are conducted off the college campus are the Navy's Aviation Reserve Officer Candidate (AVROC) program and the Marine Corps Platoon Leaders Class (PLC). These programs provide for enlistment as a Naval or Marine Corps Reservist while the student is still an undergraduate and require participation in summer military training.

Students participating in these programs attend either one or two summer training sessions, depending upon when, during their college career, they were enrolled. The objectives of the programs are to indoctrinate, motivate, and train the enrollees by providing instruction in basic military subjects, leadership, and physical training. In addition, students enrolled in the Aviation Reserve Officer Candidate programs receive limited flight orientation training and attend Navy Officer Candidate courses prior to receiving their commissions. PLC students are commissioned when their college degrees are conferred; the newly commissioned officers then attend the Marine Corps Officer Basic Course.

In conformance with the nature of these programs, the training loads in the following table are based only on the time spent in summer training. Loads, consequently, are low as compared to inputs and outputs.

The Navy Reserve Officer Candidate (ROC) program, for candidates in fields other than aviation, was discontinued at the end of FY 1976. The ROC load for FY 1976 (28) is included in the summary table on page IV-2.

Training Inputs, Outputs, Loads,  
Off-Campus Commissioning Programs  
FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>Input</u>	<u>Output</u>	<u>FY 81 Load</u>
<u>Naval Reserve</u> AVROC	35	40	300	210	40
<u>USMC Reserve</u> PLC	222	258	2,470	1,850	258
<u>DoD Total</u>	257	298	2,770	2,060	298

### Officer Candidate Schools (OCS)

Each of the Military Services operates an Officer Candidate School. The Air Force school is entitled Officer Training School.

Enlisted members can use this route to "rise from the ranks". The existence of OCS programs, and the other enlisted commissioning programs covered in the next section, is therefore a significant advancement incentive to ambitious and promising enlisted personnel.

The Army, Navy, Marine Corps and Air Force offer direct entry into OCS to selected college graduates without previous enlisted service. Some college students in highly specialized academic disciplines, such as engineering and physical sciences, feel that they cannot afford the time required to participate in ROTC; OCS allows a way to a commission for these persons and, as well, for other well-qualified persons who choose to become officers after graduation from college.

OCS training of all Services is open to men and women. The following table shows the lengths of the various courses.

#### Course Lengths, Officer Candidate Schools

<u>Service</u>	<u>Course</u>	<u>Course Length (Weeks)</u>
<u>Army</u>	OCS (Male and Female Students)	14
<u>Navy</u>	OCS (Male and Female Students)	16
	Aviation OCS	12
<u>Marine Corps</u>	OCS (Male and Female Students)	10
<u>Air Force</u>	OTS (Male and Female Students)	12

Load data for OCS programs are shown in the following table.

Training Inputs, Outputs, Loads,  
Officer Candidate Schools  
FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>Input</u>	<u>FY 81 Output</u>	<u>Load</u>
<u>Army</u>					
Active	244	246	1004	750	246
Reserve	3	2	12	10	2
Guard	47	48	292	236	48
<u>Navy</u>					
Active	772	865	2,710	2,220	871
<u>USMC</u>					
Active	108	111	638	437	111
<u>Air Force</u>					
Active	996	1,447	6,120	5,329	1,354
Reserve	8	7	30	28	7
<u>DoD</u>					
Active	2,120	2,669	10,472	8,736	2,582
Res/Gd Total	58	57	334	274	57
DoD Total	2,178	2,726	10,806	9,010	2,639

Other Enlisted Commissioning Programs

The Air Force, Navy, and Marine Corps each have enlisted commissioning programs in addition to Officer Candidate courses. The purposes of these programs are: (1) to provide a source of officers in specific skills with an expected high rate of retention; (2) to provide an avenue whereby enlisted personnel with proven qualifications can augment the commissioned ranks; and (3) to provide a measure of motivation to enlisted personnel. The Naval Enlisted Scientific Education Program for enlisted Naval and Marine Corps personnel, provides up to four years of college education leading to a baccalaureate degree in one of the major areas of engineering or mathematics and a commission in the Regular Navy or Marine Corps. This program is phased out in FY 1981. A similar program, the Marine Enlisted Commissioning Education Program, has been expanded to offer degrees in technical and liberal arts academic disciplines. Students in the USAF Airman Education and Commissioning Program major in engineering, computer science, or physical science, with matriculation up to three years; the average academic time spent in the program is about 21 months. In all these enlisted commissioning programs, participants attend the Officer Candidate School of their Service before they are commissioned.

The following table displays load data for these programs. All participants are members of the active forces.

Training Inputs, Outputs, Loads,  
Other Enlisted Commissioning Programs, FY 1979-81

<u>Service</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	
	<u>Load</u>	<u>Load</u>	<u>Input</u>	<u>Output</u>
Navy	519	611	385	330
Marine Corps	211	241	387	384
Air Force	352	495	350	186
DoD Total	1,082	1,347	1122	900
				1525

Health Professions Acquisition Programs

This subcategory may be conveniently divided into three parts, the Armed Forces Health Professions Scholarship Program, the Uniformed Services University of the Health Sciences Program, and "other health professions acquisition programs."

The Health Professions Scholarship program was established in 1972 by Public Law 92-426. Participants are selected from among students, or those accepted for enrollment, in recognized health professions schools. Participants are commissioned in grade O1 in the Reserve of their parent Service, but, except for a short period of annual active duty, are not in active status.

They are, therefore, not included within the training loads of their Services. Upon graduation, participants must serve obligated tours of duty, the length of which depends on the length of their participation in the program.

The program is authorized a total of 5,000 scholarships at its current level. Service data for FY 1981 is shown in the following table:

<u>Service</u>	<u>Scholarships</u>	<u>FY 1981 Graduates</u>
Army	1,850	460
Navy	1,575	479
Air Force	1,575	451
DoD Total	5,000	1,390

"Other health professionals acquisition programs" include a variety of programs with the purpose of recruiting required health professionals into the Services through tuition assistance or other aid. Among the included programs are programs for medicine, dentistry, nursing, and other disciplines in the health professions. Some programs offer assistance for full courses of professional training, whereas others are offered only to students in their final year of study. Some included programs support health professional training for active duty Service members, intended to produce high-retention health professionals. Participants in all programs incur an active duty obligation commensurate with the educational support received.

These programs are being effectively phased out as we are obtaining these resources through other accession programs. The load data is shown in the following table.

Training Inputs, Outputs, Loads, Other Health Professional Acquisition Programs, FY 1979-81

<u>Service</u>	<u>FY 79</u> <u>Load</u>	<u>FY 80</u> <u>Load</u>	<u>FY 81</u> <u>Input</u>	<u>Output</u>	<u>Load</u>
Army	21	12	-	-	-
Navy	70	34	-	17	11
Air Force	73	43	-	25	22
DoD Total	164	89	-	42	33

An additional acquisition program for health professionals, the Uniformed Services University of the Health Sciences (USUHS), began operation in 1976. In accordance with PL 92-426, the student body of the USUHS is composed of commissioned officers of the Uniformed Services. The first graduates of this program occur in FY 1980. Training inputs, output and loads for this DoD school for FY 1979-1981 are shown below.

Training Inputs, Outputs, Loads, USUHS  
FY 1979-81

<u>FY 79</u> <u>Load</u>	<u>FY 80</u> <u>Load</u>	<u>FY 81</u> <u>Input</u>	<u>Output</u>	<u>Load</u>
246	354	146	67	450

## SPECIALIZED SKILL TRAINING

General Description

Specialized Skill Training provides officer and enlisted personnel with skills and knowledge needed to perform specific jobs. Each Service has established a job structure that makes it possible for it to carry out its assigned missions. Each position in each organization within that job structure has been analyzed to determine the skills necessary to insure that each job is done properly and efficiently. The purpose of Specialized Skill Training is to impart these required skills to the proper number of individuals in a phased manner so that each position vacancy in the structure can be filled promptly with a qualified replacement.

Specialized Skill Training, as used in this report, is characterized by the following:

Inclusions: Initial, progression and functional training for both officers and enlisted personnel. Specialized Skill Training specifically includes Army Advanced Individual Training and Navy Apprenticeship Training. This training category also includes aviation-related ground training and enlisted leadership training below the level of that carried in Professional Development Education.

Exclusions: All Officer Acquisition Training programs, notably Officer Candidate School, formerly included in Specialized Training budget documents.

Army One-Station Unit Training (OSUT), like Specialized Skill Training, provides Army personnel with job-related training in a number of skills. However, since OSUT is conducted as one continuous course which combines Recruit and Specialized Skill Training, it is treated separately in this report (see Chapter III), and OSUT loads are not included in the Specialized Skill Training loads in this chapter.

Specialized Skill Training loads for FY 1973-81 are as shown in the table on the following page.

Specialized Skill Training Loads, FY 1973-81

<u>Service Component</u>	<u>FY 73</u>	<u>FY 74</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>
<u>Army a/</u>									
<u>Active</u>	57,046	46,039	49,561	42,630	41,399	35,883	32,576	37,070	35,370
<u>Nat'l. Guard</u>	5,846	4,294	4,379	6,488	6,614	7,098	3,970	4,626	4,326
<u>Reserve</u>	3,276	1,701	2,143	3,219	4,259	3,563	2,514	3,396	3,874
<u>Navy</u>									
<u>Active</u>	44,748	37,199	35,165	37,117	35,227	35,933	35,973	36,242	39,850
<u>Reserve</u>	1,291	1,155	676	552	510	546	467	564	582
<u>Marine Corps</u>									
<u>Active</u>	10,910	11,490	9,981	11,117	9,877	9,442	10,560	11,823	11,308
<u>Reserve</u>	963	415	621	588	651	662	560	1,109	1,109
<u>Air Force</u>									
<u>Active</u>	31,162	30,070	26,092	26,531	25,238	22,629	20,167	22,449	23,908
<u>Nat'l. Guard</u>	1,160	657	792	1,085	1,035	1,040	912	1,041	991
<u>Reserve</u>	366	319	575	684	686	681	565	637	619
<u>DOD</u>									
<u>Active</u>	143,866	124,798	120,799	117,395	111,741	103,887	99,273	107,584	110,436
<u>Gd/Res Total</u>	<u>12,902</u>	<u>8,541</u>	<u>9,186</u>	<u>12,616</u>	<u>13,755</u>	<u>13,590</u>	<u>8,987</u>	<u>11,373</u>	<u>11,501</u>
<u>DOD Total</u>	<u>156,768</u>	<u>133,339</u>	<u>129,985</u>	<u>130,011</u>	<u>125,496</u>	<u>117,477</u>	<u>108,260</u>	<u>118,957</u>	<u>121,937</u>

a/ Data does not include Army One Station Unit Training Loads.

As in the other types of training covered in this report, the demand placed on the training establishment for individuals with certain skills is determined by comparing projected requirements for each skill and skill level with the projected future inventory of trained service members.

When anticipated losses are deducted from the current inventory, shortages in various skill areas are revealed. These shortages, except for those which can be satisfied through on-the-job training, or, in a few cases, through lateral entry from civilian life of individuals who already possess an employable skill, create a demand for a phased output of trained replacement personnel. Estimates are made of the portion of students in each training course who will fail to complete the course. These course attrition factors determine the inputs necessary to achieve the desired course outputs. Inputs, outputs, attrition patterns, and course lengths determine the training loads. These factors are discussed for each sub-category of Specialized Skill Training in the remainder of this chapter.

Specialized Skill Training is the most diverse of the major categories of individual training. In the interest of clarity, the full category has been divided into five sub-categories. Two are concerned with initial skill training, one for officers, the other for enlisted personnel; two others cover more advanced training, again divided by officer and enlisted. The last category covers both officer and enlisted training which, for the most part, imparts required knowledge or skills without changing the student's primary skill or skill level.

#### Initial Skill Training (Enlisted)

Initial Skill Training (Enlisted) includes all formal training normally given immediately after Recruit Training and leading toward the award of a military occupational specialty or rating at the lowest skill level. Successful completion of the training qualifies the enlisted member to take a position in the job structure of the Service and to progress, through job experience, to the journeyman level. Army One-Station Unit Training satisfies this same purpose but, because it combines the skill training with recruit training in a single course, it is treated separately in this report.

The great majority of Service recruits are drawn from the least skilled segment of the population. Most recruits are under age 21 and have little civilian job experience. In addition, some civilian specialties are not in demand in the military job structure, and many of the most important military skills have no civilian counterpart. Consequently, only a small number of people enter the Service with a skill which can be used with little or no additional training, and enlistees must be trained in a skill before they can become productive. Some skills can be acquired through experience and on-the-job training. Most, however, are most effectively and efficiently learned through

formal courses. In some situations, on board ship, for example, the opportunity for on-the-job training is often limited.

Load data for Initial Skill Training (Enlisted) are displayed in the following table. The classification of this training is determined by its purpose, rather than by whether entrants attend immediately after Recruit Training. Thus some prior-service students and cross-trainees from other skill areas are reflected in these data.

Training Inputs, Outputs, Loads, Initial Skill Training (Enlisted)  
FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>Input</u>	<u>FY 81 Output</u>	<u>Load</u>
<b>Army</b>					
Active	17,303	20,068	83,863	74,282	16,446
Reserve	1,870	2,318	13,830	12,240	2,304
Nat'l Guard	3,238	3,530	17,563	15,520	3,167
<b>Navy</b>					
Active	20,088	19,924	171,837	162,438	20,822
Reserve	299	337	3,073	2,923	337
<b>USMC</b>					
Active	7,161	7,696	46,777	43,039	7,181
Reserve	513	988	6,766	6,436	988
<b>Air Force</b>					
Active	13,480	15,428	76,697	69,794	16,589
Reserve	449	511	3,219	2,915	497
Nat'l Guard	719	805	4,052	3,881	767
<b>DoD</b>					
Active	58,032	63,116	379,174	349,553	61,038
Res/Gd Total	7,088	8,489	48,503	43,915	8,060
DoD Total	65,120	71,605	427,677	393,468	69,098

Reflecting the variety of skills required in the four Services, there are a large number of courses for enlisted personnel in Initial Skill Training, as shown in the following table:

Number of Courses, Initial Skill Training (Enlisted), FY 1981

<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>
241	165	80	319

Some of these courses are in highly technical skills, such as nuclear reactor specialist or electronics technician. Others involve less complex, but not less important, skills -- cook, clerk-typist, mechanic, and vehicle driver. A sampling of the courses in each Service with the most students in FY 1981 is shown below:

	<u>No of Students</u>	<u>Length (days)</u>
<u>Army a/</u>		
Basic Medical Specialist	10,573	42
Power Generator and Wheel Vehicle Mechanic	6,757	77
Food Service Specialist	6,003	52
Administrative Specialist	5,690	49
Material Supply Specialist.	5,291	94
<u>Navy</u>		
Apprentice Training b/	28,572	28
Basic Electricity/Electronics	23,761	54
Aviation Fundamentals	17,159	10
Propulsion Engineer Basic	9,691	22
Basic Enlisted Submarine	6,613	39
<u>Marine Corps</u>		
Rifleman	7,277	35
Basic Electronics	2,142	91
Field Radio Operator	2,000	42
Administrative Clerk	1,806	20
Machine Gunner	1,077	35
<u>Air Force</u>		
Security Specialist	6,556	32
Administration Specialist	3,496	39
Aircraft Maintenance Specialist (Tactical)	3,640	20
Aircraft Maintenance Specialist (Airlift Bombardment)	3,021	20
Inventory Mgt. Specialist	2,957	21

a/ Many of the Army high-density skills (armor, artilleryman, etc.) will be trained through One-Station Unit Training (OSUT) in FY 1981.

b/ Apprentice Training is composed of fundamental training in one of four basic skill areas: Seaman, Fireman, Airman, Constructionman. The course length shown is the average for those four skills.

Course lengths vary widely according to the complexity of the subject matter. For example, the Air Force course for electronic computer systems specialist is 187 calendar days in length, whereas the course

for pavements maintenance specialist takes only 20 days. Army nuclear power plant operators receive an entire year of training, but motor transport operators and general construction machine operators complete their training in 35 days. The Navy average is low in comparison to the others because it includes a large number of students in short courses related to particular shipboard duties and because of the predominance of the relatively short apprentice courses; in addition, Navy personnel, to a greater degree than personnel of other Services, receive supplementary formal training during their first enlistments.

Average Course Lengths, Initial Skill Training (Enlisted), FY 1981

<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>
67	43	63	81

A major Defense concern is to keep course lengths as short as is compatible with required knowledge and skills to be acquired. With the significantly shorter courses shifted to Army OSUT, the average length of the rest of Army Initial Skill training is greater than the weighted average length including the shorter Army courses. This helps to explain why, in spite of planned innovations and productivity increases, Army average course length shows an increase in recent years.

The final determinant of training loads is the anticipated rate of attrition. Attrition rates must be estimated for each course. The rate may be negligible for a reasonably routine course for which students entered in the course have the necessary mental abilities and motivation. Attrition may run much higher, up to one-third of the class entrants, in complex technical subjects, such as the Army Nuclear Weapons Electronic Specialist course. The average anticipated rates for FY 1981 are as shown:

Average Attrition Rates, Initial Skill Training (Enlisted), FY 1981  
(Percent)

<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>
11.4%	6.0%	8.0%	9.0%

Skill Progression Training (Enlisted)

This sub-category covers skill training received by enlisted personnel subsequent to Initial Skill Training. Through this training, the student gains the knowledge to perform at a more skilled level or in a supervisory position. Skill Progression Training is most frequently given after the Service member has gained experience through actual work in his specialty. In some cases, however, training in a relatively narrow subject area as an immediate follow-on to Initial Skill Training is included in Skill Progression Training.

Training load data for Skill Progression Training (Enlisted) are shown in the following table:

Training Inputs, Outputs, Loads, Skill Progression Training  
(Enlisted) FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>Input</u>	<u>FY 81 Output</u>	<u>Load</u>
<u>Army</u>					
Active	2,068	2,294	17,784	16,495	3,729
Reserve	154	245	3,317	2,959	662
Nat'l Guard	107	205	2,004	1,805	328
<u>Navy</u>					
Active	9,809	9,840	77,821	72,874	11,154
Reserve	17	17	315	309	17
<u>USMC</u>					
Active	1,046	1,315	5,972	5,507	1,315
Reserve	17	46	877	859	46
<u>Air Force</u>					
Active	4,999	5,334	60,380	59,882	5,418
Reserve	54	63	1,413	1,407	59
Nat'l Guard	143	164	2,904	2,582	157
<u>DoD</u>					
Active	17,922	18,783	161,957	154,758	21,616
Res/Gd Total	492	740	10,830	9,921	1,269
DoD Total	18,414	19,523	172,787	164,679	22,885

The requirement for Skill Progression Training arises from the fact that training in a skill at entry level and subsequent experience do not, in many cases, fully qualify a service member to do the more advanced jobs in his field without further formal training. Several factors may contribute, singly or in combination, to a need for additional formal training:

1. The introduction of new equipment.
2. The need to produce a higher degree of skill in a sub-specialty.
3. The need to impart a broader base of knowledge to qualify an individual for a supervisory responsibility.
4. The requirement for refresher training to bring the service member up to date on the latest information and techniques in his skill.

The primary need, as in all other types of training, is to have trained individuals available to replace losses as they occur. Planning future training in this sub-category follows the same general pattern as for Initial Skill Training. Some additional complications, however, are introduced by the fact that members eligible for schooling are frequently serving overseas or on board ship, rather than flowing from the Recruit Training pipeline. This situation frequently requires that personnel receive the training when they are available, preferably between duty assignments, rather than when they might more easily be accommodated for formal school training.

The following table displays statistics in Skill Progression Training in each of the Services for FY 1981.

Skill Progression Training (Enlisted), FY 1981

	Army	Navy	Marine Corps	Air Force
Number of Courses	127	1,298	66	1,358
Average Course Lengths	63	48	67	32
Projected Attrition Rate (Percent)	11.4%	4.0%	7.0%	a/

a/ Less than 1%.

The Air Force's average days in training is low compared to the other Services because of the large use of short courses. The large number of Navy and Air Force courses is a reflection of the technical nature of these Services and their large number of subspecialties. Of course, part of the difference is due to differing Service approaches to course definition and segmenting.

Initial Skill Training (Officer)

As a general rule, Officer Acquisition Training is oriented toward the broad educational background and general military training which is considered necessary for all officers entering a Service. In consequence, most newly commissioned officers require further training for the specific type of duty they will be performing in their first duty assignment. Initial Skill Training for officers is, therefore, analogous to Initial Skill Training for enlisted personnel -- both provide the job-oriented training which, added to the military fundamentals learned earlier, prepares the individual for taking a place in the job structure.

Load data for Initial Skill Training (Officer) are displayed in the following table.

Training Inputs, Outputs, Loads, Initial Skill  
Training (Officer), FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>Input</u>	<u>FY 81 Output</u>	<u>Load</u>
<b>Army</b>					
Active	2,251	2,561	11,190	11,087	2,154
Reserve	279	471	2,476	2,448	467
Nat'l Guard	310	393	2,263	2,226	391
<b>Navy</b>					
Active	1,227	1,323	6,649	6,552	1,559
Reserve	14	13	160	155	14
<b>USMC</b>					
Active	1,457	1,214	3,516	3,485	1,214
Reserve	2	2	27	27	2
<b>Air Force</b>					
Active	985	1,049	6,543	6,531	1,151
Reserve	15	15	145	143	17
Nat'l Guard	26	41	313	293	35
<b>DoD</b>					
Active	5,920	6,147	27,898	27,655	6,078
Res/Gd Total	646	935	5,384	5,292	926
DoD Total	6,566	7,082	33,282	32,947	7,004

With minor exceptions, all newly commissioned Army officers attend officer basic courses at their branch schools -- Infantry officers at the Infantry School, Engineer officers at the Engineer School, etc. Most of these courses are 12 weeks in length, and the officer attends before reporting to his first unit of assignment. In addition, certain officers are selected to attend follow-on skill or functional training courses for more specialized assignments.

All submarine and nuclear officers and most Surface Navy officers go to Initial Skill Training. The Navy provides 30 courses for officers in Initial Skill Training, with an average course length of 91 days.

All newly commissioned Marine Corps officers attend a basic course for general orientation and training. In addition, Marine officers attend 47 Initial Skill Training courses (some conducted by Navy or other Services), averaging 101 days in length, related to specific officer jobs.

The Air Force conducts 61 Initial Skill Training courses for officers, with an average of 63 days in length; about 45 percent of newly commissioned officers attend these courses.

### Skill Progression Training (Officer)

Skill Progression Training for officers is, in general, aimed at officers with several years of practical experience and provides them knowledge needed to assume more advanced responsibilities. For example, the Army provides advanced courses which are structured to prepare the students for battalion and brigade duties in addition to command responsibilities at the company and battery level. Data for Skill Progression Training (Officer) are displayed in the following table.

Training Inputs, Outputs, Loads, Skill Progression  
Training (Officer), FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>FY 81</u>		
			<u>Input</u>	<u>Output</u>	<u>Load</u>
<b>Army</b>					
Active	3,043	3,234	10,866	10,697	3,311
Reserve	85	119	1,289	1,281	158
Nat'l Guard	161	291	1,068	1,060	217
<b>Navy</b>					
Active	941	955	12,313	12,183	1,213
Reserve	8	7	300	294	8
<b>USMC</b>					
Active	157	92	279	277	92
Reserve	2	5	110	110	5
<b>Air Force</b>					
Active	507	437	11,253	11,243	525
Reserve	25	29	698	703	28
Nat'l Guard	18	22	674	669	23
<b>DoD</b>					
Active	4,648	4,718	34,711	34,400	5,141
Res/Gd Total	289	473	4,139	4,117	439
DoD Total	4,937	5,191	38,850	38,517	5,580

The Army conducts 122 courses averaging 104 days in length. The Navy maintains 146 courses, averaging 42 days in length, which cover a variety of specialized duties which are typically performed by officers with several years of service -- for example, destroyer officer course, aviation maintenance officer course, and nuclear propulsion plant course.

Both the Marine Corps and the Air Force conduct broad courses for officers at about the same level as the Army's advanced courses; however, as these are Service-wide and uniform in content, they are carried in Professional Development Education. Within Skill Progression Training, Marine Corps officers attend 102 courses, and average 93 days in length,

on a variety of specialized subjects, some conducted by the Navy or other Services. The Air Force has 405 courses, and averages 17 days in training, for the purpose of training officers in new duties required by their prospective assignments.

#### Functional Training

Functional Training is an "all other" sub-category covering those types of required training which do not fit neatly into the definitions of the other sub-categories. By and large, Functional Training is in subject areas which cut across the scope of military occupational specialties and provides additional required skills without changing the student's primary speciality or skill level. An example is a Damage Control Course conducted by the Navy. Both officers and enlisted personnel participate in Functional Training. Load data for Functional Training are shown in the following table.

Training Inputs, Outputs, Loads, Functional Training,  
FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>FY 81</u>		
			<u>Input</u>	<u>Output</u>	<u>Load</u>
<b>Army</b>					
Active	7,911	8,913	94,731	87,675	9,730
Reserve	126	243	4,520	4,072	283
Nat'l Guard	154	207	3,553	3,375	223
<b>Navy</b>					
Active	3,908	4,200	377,012	372,754	5,102
Reserve	129	190	13,932	12,770	206
<b>USMC</b>					
Active	739	1,506	8,865	8,283	1,506
Reserve	26	68	1,605	1,597	68
<b>Air Force</b>					
Active	196	201	9,227	9,146	225
Reserve	22	19	879	879	18
Natl Guard	6	9	378	375	9
<b>DoD</b>					
Active	12,754	14,820	489,835	477,858	16,563
Res/Gd Total	463	736	24,867	23,068	807
DoD Total	13,217	15,556	514,702	500,926	17,370

Army Functional Training includes the airborne, ranger, and special forces qualification courses, some specialized NCO supervision courses, and a number of courses related to specialized equipment (e.g., Manual Cordless Switchboard Repair; 8-inch Atomic Projectile Assembly).

Navy Functional Training differs from that of the other Services because of the very high input to a large number of very short courses. Most of the training consists of in-port training for ships' crews, and includes the following types of activity:

1. Shore training for shipboard teams (firefighting, damage control, anti-submarine warfare, etc.).
2. Short basic or refresher courses at fleet training centers in the operation of equipment or systems.
3. Shipboard in-port training assistance.
4. Precommissioning training for newly formed crews of ships under construction.

Marine Corps Functional Training provides skills required for specific jobs but not limited to a primary occupational specialty. Some of the included courses are scuba training, sea duty indoctrination, and drill instruction training.

All Air Force Functional Training is survival training related to various environments: water, arctic, jungle, or tropic.

The following table provides additional statistics on Functional Training.

Courses and Course Lengths, Functional Training, FY 1981

	<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>
Number of Courses	281	1,446	42	8
Average Course Length	34	4	56	8

VI

FLIGHT TRAINING

General Description

Flight Training programs provide basic flying skills required prior to operational assignment of pilots, navigators, and naval flight officers. Most of the training in this category is undergraduate flight training; at the conclusion of this training, a graduate is awarded "wings" and is classified as a "designated" or "rated" officer. Flight Training includes programs for pilots of all Services, navigators in the Air Force, and naval flight officers in the Navy and Marine Corps. Pilot training may be in jet or propeller-driven fixed-wing aircraft, or in helicopters. Some related advanced flight training, such as Army instructor pilot training and Air Force navigator/bombardier and electronic warfare training, is also included in Flight Training. Enlisted programs in aviation-related subjects (for example, in air traffic control) and Air Force survival training are in Specialized Skill Training. Marine Corps enlisted navigator training is included in Flight Training.

Flight Training loads, by Service and component, for Fiscal Years 1973 through 1981 are shown in the following table:

Total Flight Training Loads, FY 1973-81

<u>Service Component</u>	<u>FY 73</u>	<u>FY 74</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>
<u>Army</u>									
Active	1,106	704	712	709	623	724	813	1,117	1,389
Natl Guard	72	69	40	28	35	72	89	92	93
Reserve	19	16	10	10	15	42	49	43	48
<u>Navy</u>									
Active	1,903	1,739	1,495	1,442	1,335	1,287	1,065	1,354	1,399
<u>USMC</u>									
Active	807	988	599	563	658	692	859	683	705
<u>Air Force</u>									
Active	4,506	4,062	3,071	2,068	1,978	1,723	2,025	2,475	2,653
Natl Guard	215	137	127	90	97	94	128	131	130
Reserve	110	48	38	35	30	34	37	58	75
<u>DoD</u>									
Active	8,322	7,493	5,877	4,782	4,594	4,426	4,762	5,629	6,146
Res/Gd Tot	416	270	215	163	177	242	303	324	346
DoD Total	8,738	7,763	6,092	4,945	4,771	4,668	5,065	5,953	6,492

Flight Training loads were reduced by approximately 45 percent over the period FY 1973 to FY 1978 because of the net effect of the following factors:

- Peacetime reductions in active force aviator requirements in all Services, except for moderate increases in Army aviator requirements associated with the 16-division force objective in the later years.
- Restriction of undergraduate flight training for Reserve Component members to the number needed to fill positions in reserve aviation units which cannot be filled through recruitment of experienced aviators leaving active duty -- as, for example, positions in aviation units which are remote from major population centers.

Current Service forecasts call for an increase in pilot training. This increase is needed to provide adequate pilot inventories to support approved contingency scenarios. In recent years, pilot inventories have declined because of unexpected increases in attrition rates and the eventual loss of pilot overages that remained after the Vietnam drawdown.

For purposes of clarity, the following discussion of aviation training is divided into three sections, each treating a sub-category of Flight Training.

#### Undergraduate Pilot Training

The purpose of Undergraduate Pilot Training is to qualify students to perform the basic duties and assume the responsibilities of military pilots. Courses include sufficient flying training to allow the student to attain proficiency in the general class of aircraft (jet, prop, or helicopter) he/she will be flying in future assignments. Training through flying or in flight simulators is augmented by flight-related ground training and, ordinarily, some officer professional development training to prepare the student for the responsibilities of a junior officer. For the Army, which uses a large number of warrant officer pilots, entrants undergo warrant officer candidate training before entering flight phases of training; they receive their warrants upon graduation from flight training. A minority of Army flight training students are already commissioned officers upon entry. The Navy also has conducted Navy officer training for aviation officer candidates concurrently with the early phases of flight training.

Training data for FY 1979-81 are displayed in the following table:

Training Inputs, Outputs, Loads, Undergraduate  
Pilot Training, FY 1979-81

<u>Service Component</u>	FY 79	FY 80	FY 81		
	<u>Load</u>	<u>Load</u>	<u>Input</u>	<u>Output</u>	<u>Load</u>
<u>Army</u>					
Active	630	911	1,636	1,405	1,190
Reserve	33	32	45	45	33
Natl Guard	62	63	90	90	64
<u>Navy</u>					
Active	783	966	1,280	897	957
<u>USMC</u>					
Active	732	563	685	500	635
<u>Air Force</u>					
Active	1,286	1,681	2,137	1,850	1,826
Reserve	31	44	66	58	57
Natl Guard	82	82	101	87	89
<u>DoD</u>					
Active	3,431	4,121	5,738	4,652	4,608
Res/Gd Tot	208	221	302	280	243
DoD Total	3,639	4,342	6,040	4,932	4,851

In each President's Budget from FY 1977 through 1980, the Department proposed consolidating all Defense undergraduate helicopter pilot training into a single course conducted by the Army. This consolidated program would have replaced the separate Army program, which also trains Air Force student, and the separate Navy program, which also trains Marine Corps and Coast Guard students. However, the Congress rejected the consolidation proposal each year. Consequently, the FY 1981 President's Budget continues the separate Army and Navy programs.

It is possible that the training capacity of the Navy undergraduate helicopter pilot training program will be insufficient to train all of the programmed students. As a way of coping with this contingency, the Department of Defense has arranged for the Army to be prepared to train up to 144 students for the Navy in FY 1981. These students, after they graduate from the Army course, would get 50 flying hours of additional training from the Navy. This additional training would insure that these students were fully prepared in instrument flight and other maritime skills before joining the fleet. The President's Budget contains funds both for Army training of up to 144 Navy students and for Navy to give 50 flying hours of follow-on training to these students.

Load data for each Service for undergraduate helicopter pilot training are shown below.

Training Inputs, Outputs, Loads, Undergraduate  
Helicopter Pilot Training, FY 1979-81

<u>Service</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>		
<u>Component</u>	<u>Load</u>	<u>Load</u>	<u>Input</u>	<u>Output</u>	<u>Load</u>
<u>Army</u>					
Active	630	911	1,636	1,405	1,190
Reserve	33	32	45	45	33
Natl Guard	62	63	90	90	64
<u>Navy</u>					
Active	198	249	410	251	230
<u>USMC</u>					
Active	449	357	377	275	326
<u>Air Force</u>					
Active	45	67	102	100	75
Reserve	-	-	-	-	-
Natl Guard	1	2	2	2	2
<u>DoD</u>					
Active	1,322	1,584	2,525	2,031	1,821
Res/Gd Tot	96	97	137	137	99
DoD Total	1,418	1,681	2,662	2,168	1,920

The following table shows programmed course lengths and projected attrition rates for the Army undergraduate helicopter pilot training program.

Course Length and Attrition Rates, Army Undergraduate  
Helicopter Pilot Training  
FY 1981

	<u>Commissioned Officers</u>	<u>Warrant Officer Candidates</u>
<u>Course Length (weeks)</u>	34	6
<u>Attrition Rate</u>	10-11%	15%      34 16%

The course is six weeks longer for warrant officer candidates than for commissioned officers, since the course also serves as a warrant officer candidate school. Navy and Marine students who will attend the Army course, if the capacity of the Navy program is insufficient, will get several more weeks of training from the Navy after graduating from the Army course. Navy Undergraduate Pilot Training begins with a common core of basic ground training and primary flight training and then diverges according to whether the student is to be qualified in jet aircraft, propeller aircraft or helicopters. The basic ground phase, or environmental indoctrination phase, is four weeks in length for officer students and 12 weeks for aviation officer candidates, since this phase also serves as an officer training period for the latter group.

The following table shows course lengths, attrition rates, and type of aircraft used for training for each phase of the syllabus:

Course Phasing, Navy/Marine Corps  
Undergraduate Pilot Training

<u>Course/Phase</u>	<u>Course Length (Weeks)</u>	<u>Attrition Rate (Percent)</u>	<u>Type Aircraft</u>
<b>Environmental Indoctrination</b>			
Aviation Officer Candidates	12	10	-
Officers	4	2	-
<b>Primary (all students)</b>			
	17	16	T-34C <u>a/</u>
<b>Strike Training (Jet)</b>			
Intermediate	20	8	T-2C
Advanced	18	4	TA-4J
<b>Helicopter</b>			
Intermediate	5	2	T-34C
Transition	5	1	TH-57
Advanced	11	5	TH-1
<b>Maritime Training (Prop)</b>			
Intermediate	5	2	T-34C <u>a/</u>
Advanced	17	2	TS-44A <u>b/</u>

a/ Replaces T-28 aircraft.

b/ Replaces TS-2A aircraft.

Because of the task requirements which dictate variations in course content, the standard Undergraduate Pilot Training course is as short as 42 weeks for an officer student qualifying in helicopters or as long as 67 weeks for an aviation officer candidate qualifying in jets. Actual course duration may be longer because of unforeseen circumstances such as major aircraft groundings, fuel shortages, or inclement weather.

The following table displays load data for Navy and Marine Corps Undergraduate Pilot Training. All participants are in the active force.

Training Inputs, Outputs, Loads, Navy/Marine Corps  
Undergraduate Pilot Training, FY 1979-81

<u>Service</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	
	<u>Load</u>	<u>Load</u>	<u>Input</u>	<u>Output</u>
<u>Navy</u>				
Jet	320	420	456	324
Prop	265	297	414	322
Helo	198	249	410	251
<u>USMC</u>				
Jet	283	206	308	225
Helo	449	357	377	275

The final program of Undergraduate Pilot Training is Air Force training of jet pilots. All Air Force pilots, except helicopter pilots trained in the Army program, are trained in this jet program at the present time. The standard course length is 49 weeks. Forecasted attrition for FY 1981 is 13.6 percent, not including that which occurs in the flight screening of the Flight Familiarization Training program. Load data are shown in the following table:

Training Inputs, Outputs, Loads, Air Force Undergraduate  
Jet Pilot Training, FY 1979-81

	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	
	<u>Load</u>	<u>Load</u>	<u>Input</u>	<u>Output</u>
Active	1,241	1,614	2,035	1,750
Reserve	31	44	66	58
Natl Guard	81	80	99	85
Total	1,353	1,738	2,200	1,893
				1,895

At the conclusion of Undergraduate Pilot Training, the new pilot is capable of operating an aircraft in such a manner that future training required, in order to accomplish a specific mission, is limited to advanced flight training in aircraft used in operational units and training in the employment of applicable mission weapon systems.

Undergraduate Navigator Training

The Navy trains Navy and Marine Corps personnel to become Naval Flight Officers. The Air Force trains its personnel as navigators. The duties of Naval Flight Officers and Air Force navigators are not precisely the same because of mission differences. But at the undergraduate level, they are sufficiently similar that they are referred to collectively in this report as "navigators". (The Army does not train or use navigators.) Some navigator training has recently been consolidated, as is discussed later.

The Undergraduate Naval Flight Officer (NFO) training program is a building block training program. The training commences with Environmental Indoctrination (4 weeks for officers) or Officer Candidate School (12 week for officer candidates) where the student is provided basic aeronautical and aviation physiological foundation knowledge. After completing this phase, the student enters the Basic phase. This 15.6 week course provides the student with the basic skills and knowledge needed to safely navigate, communicate, manage aircraft systems, and to describe two-plane formation maneuvers. Successful completion of Basic qualifies students for entrance into Interservice Undergraduate Navigation Training (22 weeks) conducted at Mather AFB, California (described in a later paragraph), or the Navy intermediate phase. The intermediate phase (5 weeks) expands the knowledge gained in Basic and requires higher skill and performance standards. Practical flight skills are developed in the ID23 computerized navigation/communications training device and the 2F101/2F90 simulators, the T-2C aircraft for jet acclimatization and high-speed navigation and the T-39 aircraft for jet instrument navigation. After successful attainment of the performance standards, the students proceed to one of the following advanced naval flight officer training phases which provides specific skills and knowledge: Radar Intercept Officer (17.4 weeks), Tactical Navigation (10.7 weeks), and Airborne Tactical Data Systems Officer (10 weeks).

On 2 October 1978, the Air Force replaced the previous 33-week Undergraduate Navigator Training (UNT) course with a restructured program consisting of a 28 week basic course which includes 64 hours of flight simulator training, 68 hours of actual flight instruction in the T-43 aircraft, and 9.1 hours in the T-37 aircraft. After the basic course, a bomber, tanker, or cargo aircraft assignee continues training in the five-week Advanced Navigator Course which provides 26 simulator hours, and 20 flying hours in the T-43. A fighter or reconnaissance aircraft assignee receives an additional 10 hours of flight simulator, and 11.7 flying hours in the T-37 while attending the six-week Tactical Navigator Course.

The advanced segment of Undergraduate Navigator Training for Naval Flight Officers destined for the anti-submarine warfare community was merged into the Air Force program at Mather Air Force Base in California in 1976. This involves Naval Flight Officers in the program already described destined to become navigators of multi-engine aircraft.

Undergraduate Navigator Training provides sufficient skills and knowledge so that further training for the newly rated navigator can be limited to advanced flight training in operational aircraft and training in employment of applicable weapons systems. Training load data for Undergraduate Navigator Training are shown in the following table:

Training Inputs, Outputs, Loads, Undergraduate  
Navigator Training, FY 1979-81

<u>Service Component</u>	FY 79 Load	FY 80 Load	Input	FY 81 Output	Load
<u>Navy</u>					
Active	282	388	775	470	442
<u>USMC</u>					
Active/ <sup>a/</sup> <u>Air Force</u>	127	120	83	56	70
Active	398	419	1,329	1,182	446
Reserve	5	13	50	50	17
Natl Guard	40	42	108	110	35
<u>DoD</u>					
Active	807	927	2,187	1,708	958
Res/Gd Tot	45	55	158	160	52
DoD Total	852	982	2,345	1,868	1,010

<sup>a/</sup> Data for FY 1979 thru FY 1981 reflect implementation of the revised UNT multiple course approach described in the preceding narrative.

Other Flight Training

This category covers miscellaneous other types of flight training as described below. Load data are displayed in the following table:

Training Inputs, Outputs, Loads  
Other Flight Training, FY 1979-81

<u>Service Component</u>	FY 79 Load	FY 80 Load	Input	FY 81 Output	Load
<u>Army</u>					
Active	183	206	2,294	2,294	199
Reserve	16	11	106	106	15
Natl Guard	27	29	218	218	29
<u>Air Force</u>					
Active	138	174	1,786	1,622	212
Reserve	1	1	9	9	1
Natl Guard	6	7	63	60	6
<u>DoD</u>					
Active	321	380	4,080	3,916	411
Res/Gd Tot	50	48	386	383	51
DoD Total	371	428	4,466	4,299	462

The Army includes in this category courses for instructor pilots and specific pilot qualification courses in various aircraft. Most of the courses are short, in the range of two to seven weeks.

The Navy and Marine Corps do not report training in this category, noting that postgraduate flight training is conducted under operational command auspices. The Air Force Other Flight Training workload is limited largely to instructor courses for pilots and navigators and some specialized courses conducted by the Air Training Command in such fields as electronic warfare. Most Air Force postgraduate flight training is conducted under operational command auspices.

The Air Force also conducts a separate 24-day flight screening program for candidates for Undergraduate Pilot Training who have not had previous flight familiarization training. The resulting student loads are included in Other Flight Training. Similar training is provided to most Air Force Academy cadets, some Air Force ROTC cadets, and a limited number of cadets and midshipmen from the Military and Naval Academies. The associated workload is included in the Service Academy loads and in ROTC enrollment figures.

In each of the Services, graduates of undergraduate pilot and undergraduate navigator training receive supplementary training in the specific aircraft they will be flying on operational missions. Emphasis is placed on crew training and performance under conditions which would be encountered in combat. In the Army most of this training is provided as part of normal unit training by the operational unit to which the new pilot is assigned. In the other Services, this additional training is provided by Navy fleet readiness squadrons, Marine combat crew readiness training squadrons, and Air Force combat crew training squadrons. As an exception, centrally-conducted Army advanced flight training loads are included within Other Flight Training loads. However, most such training is considered "crew and unit training" by the Navy, Marine Corps, and Air Force and is not included in the loads of this report.

#### Determination of Requirements for Rated Officers

Flight Training rates are developed by comparing projections of future requirements for rated officers with projections of the future status of inventories of both reserve and active duty rated officers. Consideration is given to the need to have sufficient active duty aviators on hand, in appropriate grades. Requirements for rated officers include both the numbers needed to man the force in peacetime and the additional increment needed under approved mobilization scenarios to man and sustain the force when war breaks out. For analytical purposes, aviator requirements are divided into two parts: unit and individuals. Requirements for aviators for each of these categories are computed to meet both (1) peacetime needs and (2) wartime mobilization needs under approved mobilization scenarios.

Unit requirements represent the number of rated officers needed to carry out operational, training, and management activities for programmed units. Each such authorized position (that is, military space or billet) requires a rated officer as an incumbent in order to carry out the functions of the job, either because the job involves flying duties (i.e., "operational flying" positions as defined for purposes of the Aviation Career Incentive Act of 1974) or requires flying experience. Other positions which may be occupied by rated officers for career broadening or similar purposes, but which do not require rated officer incumbents for accomplishing the duties, are not included. Unit requirements have three subcomponents: force, training, and supervision.

Force requirements are the positions required to man and operate the Services' force aircraft. The number of force positions is a product of established crew ratios, or the number of crews per aircraft, which in turn take into account workload (flying hour) and readiness factors and the amount of mission flying and unit flight training which is necessary.

Training positions include the flyers who are conducting formal flight training.

The supervision component is made up of officer positions entailing actual supervision of flying and flight-related activities and the performance of staff jobs which require the expertise of a rated officer. These positions are subject to continuous scrutiny to assure that rated requirements are valid.

Individual requirements include the transients, students and other individuals needed to make it possible to provide for reasonable manning of positions in units.

#### Rated Officer Inventory Projections

Projecting rated officer inventories into the future must be based on historical experience, current judgment, and an appraisal of how the officers will react to conditions in the future (i.e., pay, morale, state of the civilian economy, civilian airline hiring plans, family satisfaction with service life, etc.). These estimates are projected for at least five years in the future. Comparisons of total force inventories of rated officers are then made against the computed total force requirements, and training rates for the entire five-year period are adjusted. This process is repeated each year so that adjustments can be made in training rates based on changes in requirements and/or updated inventory projections. This continuing process of adjustment is necessary to insure that the correct number of trained rated officers will be available in the future without large and expensive fluctuations in training rates.

### Training Rate Adjustments

When a comparison of requirements and inventories discloses a shortage or overage of projected rated officers, training rates are adjusted upward or downward in order to bring the program back into balance. For example, if projected FY 1987 pilot requirements exceed projected inventories by 1,000, an increase in training rates (that is, output or production) of pilots of 250 per year starting in FY 1983 may be appropriate. Inputs into the training program would start in FY 1982 in order to obtain the first increase in desired output in FY 1983. This reevaluation process is repeated at least once each year, with adjustments made as necessary to avoid wide fluctuations in loads.

### Determination of Training Loads

The process described above, through continuous updating of the comparison between projected rated officer requirements and inventories, leads to a requirement for phased output from the flight training establishment. The desired annual output, considering the anticipated attrition rates and the planned course lengths, as discussed in the preceding sections on the various types of flight training, establishes the size of the input necessary to achieve the target output. Training loads are then calculated, using these factors, to determine the average number of students to be on hand during the training year. For FY 1981, the currently recommended loads are those displayed previously in this chapter.

VII

PROFESSIONAL DEVELOPMENT EDUCATION

General Description

The purpose of Professional Development Education is to provide training and education to career military personnel to prepare them to perform the increasingly complex tasks which become their responsibilities as they progress in their military careers. Whereas Specialized Skill Training is directed toward specific job skills, Professional Development Education is concerned with broader professional development goals in such subjects as military science, engineering, medicine, and management. Professional Development Education is conducted at both military and civilian institutions. This category includes senior enlisted leadership training in recognition of the broad professional content of these courses, as opposed to the narrower skill-oriented training typical of most enlisted training programs. However, most of the programs in this category are for professional development of officers.

Training loads for FY 1973-81 are as shown in the table on the following page.

Professional Development Loads, FY 1973-81

<u>Service Component</u>	<u>FY 73</u>	<u>FY 74</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>
<u>Army</u>									
Active	5,849	5,868	4,480	4,023	3,424	3,374	3,109	3,234	3,419
Nat'l Guard	58	69	68	94	83	89	55	52	48
Reserve	87	103	80	125	55	60	45	53	55
<u>Navy</u>									
Active	5,112	5,723	4,081	2,767	1,762	1,616	1,556	1,710	1,804
Reserve	12	24	15	11	10	15	3	14	14
<u>Marine Corps</u>									
Active	1,874	1,079	980	801	697	728	637	654	659
Reserve	52	16	15	15	18	16	15	15	15
<u>Air Force</u>									
Active	5,596	4,889	4,704	4,491	4,324	3,520	3,222	3,425	3,453
Nat'l Guard	92	39	39	39	42	36	36	35	35
Reserve	68	49	70	32	34	39	35	48	48
<u>DoD</u>									
Active	18,431	17,559	14,245	12,082	10,207	9,238	8,524	9,023	9,335
Gd/Res Total	369	300	287	316	242	255	189	217	215
DoD Total	18,800	17,859	14,532	12,398	10,449	9,493	8,713	9,240	9,550

The total loads in the table show a considerable disparity among the Services in amounts of Professional Development Education. This disparity is more apparent than real, and is related mainly to somewhat different ways of categorizing Service education programs. The Air Force, for example, conducts an Enlisted Leadership Training Course, whereas the Navy does not, although it provides advanced technical training carried under Specialized Skill Training.

The first three subcategories of Professional Development Education are officer professional military development programs. These programs are at three levels: basic, intermediate, and senior.

Education in the military school system is fundamental to the development of military officers who are fully qualified to perform duties of high responsibility in both war and peace. In most non-military professions, growth in ability and knowledge is gained through experience. In the military, opportunities for full practice of the profession are limited to wartime, and even those officers with combat experience have not had the opportunity for thorough exercise of the decision skills they would require, for example, in a war in the Middle East. The military school system serves partially to fill this shortfall by educating the military officer in the skills and knowledge needed to perform his duties in a variety of locales and situations, both in peacetime and wartime.

In addition to their regular courses for active force officers, most schools in this category present nonresident courses and short seminars. Large numbers of Reserve Component officers and other military students are provided instruction through correspondence courses.

#### Basic Officers Professional Schools

The Marine Corps and Air Force conduct basic officer courses for officers with some experience in operational units which are Service-wide in scope and are, therefore, carried in this report under Professional Development Education. The Army and Navy conduct courses which are at a similar level, but which are oriented toward specific skills (e.g., the Navy's Surface Warfare Officers Course) or somewhat broader skills within a specific part of the Service (e.g., the Army's Armor Officer Advanced Course). The Army and Navy courses, because of their specialization, are treated in this report as part of Specialized Skill Training.

The Marine Corps Amphibious Warfare Course is designed to prepare officers in the grade of captain for duties in battalion or squadron command or on regimental-level staffs. The course length is 38 weeks. The Air Force Squadron Officer School is an 11-week course designed to prepare selected captains, after completion of some active service experience, for command and staff duties appropriate to their grade.

The training load data for FY 1979-81 associated with these Marine and Air Force courses are displayed in the following table.

Training Inputs, Outputs, Loads, Basic Officers  
Professional Schools, FY 1979-81

<u>Service Component</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>		<u>Load</u>
	<u>Load</u>	<u>Load</u>	<u>Input</u>	<u>Output</u>	
<u>USMC</u>					
Active	123	126	170	170	126
Reserve	7	7	195	195	7
<u>Air Force</u>					
Active	496	558	2,638	2,638	558
Reserve	1	2	8	8	2
Nat'l Guard	2	4	21	21	4
<u>DoD</u>					
Active	619	684	2,808	2,808	684
Res/Gd Total	10	13	224	224	13
DoD Total	629	697	3,032	3,032	697

Intermediate Service Schools

Each of the Services maintains a Command and Staff College. In addition, the Navy is executive agent for the Armed Forces Staff College, a joint institution sponsored by the Joint Chiefs of Staff with students from all Services. While there are differences in approach and curriculum based on the requirements of the parent Service, each of the courses is designed to prepare officers for command and staff duties in all echelons of their parent Services and in joint or allied commands. A relatively small number of officers from each Service attends one of the Command and Staff Colleges of the other Services; a few attend Allied schools at the same level. Attendance at the Intermediate Service Schools is on a selective basis. The following table lists the Command and Staff Colleges and their respective course lengths.

Intermediate Service Schools

<u>Schools</u>	<u>Location</u>	<u>Course Length</u> <u>(Weeks)</u>
Armed Forces Staff College	Norfolk, VA	22
Army Command and General Staff College	Fort Leavenworth, KA	40
College of Naval Command and Staff	Newport, RI	42
Marine Corps Command and Staff College	Quantico, VA	43
Air Command And Staff College	Montgomery, AL	43

Another school presently considered to be in the Intermediate Service Schools category is the Defense Systems Management College at Fort Belvoir, Virginia. This is a joint school which conducts a primary 20-week course in management concepts and methods with the major purpose of preparing selected military officers and DoD civilian personnel for assignments in program or project management.

Load data for military personnel attending Intermediate Service Schools is shown in the following table:

Training Inputs, Outputs, Loads, Intermediate Service Schools, FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>FY 81</u>		
			<u>Input</u>	<u>Output</u>	<u>Load</u>
<b>Army</b>					
Active	803	822	2,564	2,563	892
Reserve	24	32	184	183	33
Natl Guard	36	32	309	308	29
<b>Navy</b>					
Active	182	193	1,377	1,377	193
Reserve	1	6	178	178	6
<b>USMC</b>					
Active	146	144	190	188	142
Reserve	8	8	195	195	8
<b>Air Force</b>					
Active	475	459	596	596	459
Reserve	14	15	122	122	15
Natl Guard	14	15	127	127	15
<b>DoD</b>					
Active	1,606	1,618	4,727	4,724	1,686
Res/Gd Tot.	97	108	1,115	1,113	106
DoD Total	1,703	1,726	5,842	5,840	1,792

#### Senior Service Colleges

Each of the Military Departments maintains a Senior Service College, or "War College." In addition, there is the National Defense University, consisting of two joint Senior Service Colleges, The National War College and the Industrial College of the Armed Forces, attended by students from all four Services. Senior Service College attendance is on a highly selective basis; students are chosen by Service selection boards from among the most promising officers in the lieutenant colonel/colonel, commander/captain grades.

The common purpose of the Senior Service Colleges is to prepare students for senior command and staff positions at the highest levels in the national security establishment and the allied command structure. The unifying focus is the study of national goals and national security

policy. Each of the Service colleges, while concentrating on the employment of the parent Service in the defense mission, also includes the study of the employment of the forces of other Services.

All of the colleges integrate the study of economic, scientific, political, sociological, and other factors into the consideration of national security problems. The Industrial College, in its approach to national security problems, emphasizes the use and management of national resources. The length of the principal courses at the Senior Service Colleges is ten months. Most colleges also conduct shorter special-purpose seminar-type courses, some particularly for Reserve Component officers. Use of these short courses is greater in the Navy.

Load data for the Senior Service Colleges are shown in the following table.

Training Inputs, Outputs, Loads, Senior Service Colleges, FY 1978-80

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>Input</u>	<u>Output</u>	<u>Load</u>
<b>Army</b>					
Active	291	260	526	526	260
Reserve	16	16	170	170	17
Natl Guard	12	13	73	73	12
<b>Navy</b>					
Active	79	120	1,790	1,790	120
Reserve	2	7	213	213	7
<b>USMC</b>					
Active	57	54	65	65	54
Reserve	-	-	-	-	-
<b>Air Force</b>					
Active	260	238	271	271	238
Reserve	6	5	43	43	5
Natl Guard	6	5	43	43	5
<b>DoD</b>					
Active	687	672	2,652	2,652	672
Res/Gd Tot.	42	46	542	542	46
DoD Total	729	718	3,194	3,194	718

Enlisted Leadership Training

The courses included in this category are intended to provide selected senior enlisted personnel the skills and knowledge needed to assume the responsibilities of the highest non-commissioned officers grades. These courses are the culmination of formal enlisted training

and are, for enlisted personnel, analogous to the officer courses discussed in the preceding sections. In addition to such subjects as methods of leadership, human relations, discipline and training, and the administration and employment of military organizations, the senior non-commissioned officer, in these higher-level schools, is given a broader perspective of the role and functions of his or her Service.

Schools, locations and course lengths are shown below:

<u>Schools</u>	<u>Location</u>	<u>Course Length (Weeks)</u>
Army: Sergeants Major Academy	Fort Bliss, TX	22
Marine Corps: Staff NCO Academy	Quantico, VA	6
Air Force: Senior NCO Academy	Gunter AFS, AL	9

Other enlisted leadership training for more junior noncommissioned officers is carried in Specialized Skill Training. This includes command NCO academies, for example. This is more properly skill related for specific types of specialized leadership responsibilities. The senior enlisted leadership training carried here is more properly thought of as professional military education in a broader sense.

Loads for Enlisted Leadership Training are shown below:

Training Inputs, Outputs, Loads, Enlisted Leadership  
Training, FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>FY 81</u>		
			<u>Input</u>	<u>Output</u>	<u>Load</u>
<b>Army</b>					
Active	175	217	496	489	217
Reserve	5	5	12	12	5
Natl Guard	7	7	16	16	7
<b>USMC</b>					
Active	80	85	672	639	80
Reserve	-	-	-	-	-
<b>Air Force</b>					
Active	189	200	1,155	1,155	200
Reserve	-	3	15	15	3
Natl Guard	4	5	30	30	5
<b>DoD</b>					
Active	444	502	2,323	2,283	497
Res/Gd Total	16	20	73	73	20
DoD Total	460	522	2,396	2,356	517

### Graduate Education Fully Funded, Full Time

The Department of Defense needs military officers with specialized advanced knowledge, at a level attainable only through graduate education, to perform effectively in certain military jobs. The purpose of the graduate education program in each of the Services is to provide graduate-level education in required disciplines to the numbers of officers required to maintain an inventory of officers qualified to fill these jobs. Under the program described in this section, military officers undergo graduate education on a full-time, fully-funded basis. An active service pay back obligation of three-for-one for the period of schooling is required of all officers entering the program, up to a maximum set by the Services. (The Funded Legal Education program established by 10 USC 2004 requires an active service commitment of two-for-one.)

The following table displays training load data for these graduate education programs. All participants are members of the Active Forces.

Training Inputs, Outputs, Loads, Graduate Education,  
Fully Funded, Full Time, FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>FY 81</u>		
			<u>Input</u>	<u>Output</u>	<u>Load</u>
<u>Army</u>					
Active	775	704	440	440	695
<u>Navy</u>					
Active	870	895	605	498	965
<u>USMC</u>					
Active	111	118	87	72	128
<u>Air Force</u>					
Active	<u>881</u>	<u>943</u>	<u>630</u>	<u>596</u>	<u>928</u>
DoD Total	2,798	2,823	1,242	1,683	2,879

Officer graduate students attend either a civilian educational institution or one of the two Service institutions, the Naval Postgraduate School or the Air Force Institute of Technology, depending upon where the required education can best be obtained. Curricula in the latter two institutions emphasize military-unique courses, such as in logistics management or intelligence operations, and military applications in all other courses. While these schools are primarily used by the parent Services (including Marine Corps use of the Naval Postgraduate School), they also educate some students from other Services. The following table displays programmed FY 1981 student loads for these two schools by the parent Services of the students making up the load.

Graduate Education Loads at Service Institutions, FY 1981

	<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>	<u>Total</u>
Naval Postgraduate School	130	780	70	50	1,030
Air Force Institute of Technology	30	6	4	388	428

Requirements for graduate-educated officers depend upon the number of "validated billets", that is, military positions which have been determined to require an incumbent with graduate-level education in the applicable academic discipline. Each Service has established a system, ordinarily culminating in a board of senior officials in the Service headquarters, which examines the duty prerequisites for each billet nominated for validation and determines if the job does, in fact, require an officer with an advanced degree. (Requirements for included graduate legal education are determined separately; these programs were authorized in 1973 by Public Law 93-155.)

Other Full Time Education Programs

In addition to the Professional Development Education programs already described there is a variety of other full time programs tailored to meet the particular needs of the Services (Health Professions Education programs are discussed in a separate section at the end of this chapter).

Several programs have been designed to permit selected individuals an opportunity to work toward associate, baccalaureate or advanced degrees. These programs benefit the Services in several important ways: they increase the technical qualifications of the individuals in the program; they improve the general educational levels of Service personnel; and they provide career retention and recruiting incentives to outstanding personnel. In addition, to the extent possible, personnel in advanced education programs are later used to satisfy validated requirements and hence reduce the required student load in graduate education for validated billets.

The degree-completion programs are managed by the individual Military Departments and each has its own selection criteria. However, in general a person is not selected for a program unless the education will enhance his professional development and be of use to the Military Department. All of the programs require a payback from the individual.

Short-course training provides the Military Services with needed skills in a wide variety of scientific, administrative and other fields. These programs are selected to train personnel in job-oriented skills which can best be acquired through abbreviated courses. Accounting, traffic management and aviation safety are examples of skills involved. Some of this included training is conducted in DoD schools, the remainder in civilian institutions.

The following table displays load data for this category;

Training Inputs, Outputs, Loads, Other Full-Time Education Programs, FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>FY 81 Input</u>	<u>Output</u>	<u>Load</u>
<b>Army</b>					
Active	605	710	1,614	1,610	740
<b>Navy</b>					
Active	264	339	1,907	1,881	363
Reserve	-	1	10	10	1
<b>USMC</b>					
Active	120	127	125	106	129
<b>Air Force</b>					
Active	526	583	6,492	6,489	598
Reserve	14	23	452	452	23
Natl Guard	10	6	125	125	6
<b>DoD</b>					
Active	1,515	1,759	10,138	10,086	1,830
Res/Gd Tot	<u>24</u>	<u>30</u>	<u>587</u>	<u>587</u>	<u>30</u>
DoD Total	1,539	1,789	10,725	10,673	1,860

#### Health Professions Education

This subcategory is made up of a wide variety of courses for personnel of all health professions -- physicians, dentists, nurses, medical administrators, etc. The majority of the courses offered are conducted in military facilities, and vary in length from a few days to a full year. Some training is conducted at civilian medical institutions, including, in the case of the Army, some advanced degree programs. The purpose of Health Professionals Education is to expand the skills of

military medical personnel and to provide them timely information on the latest techniques in their fields. Educational programs connected with the acquisition of health professionals is carried in this report under Officer Acquisition Training. In this category, the Navy provides long-term training. The Army and Air Force rely on short courses.

The following table shows load data for Health Professions Education.

Training Inputs, Outputs, Loads, Health Professions Education, FY 1979-81

<u>Service Component</u>	<u>FY 79 Load</u>	<u>FY 80 Load</u>	<u>Input</u>	<u>Output</u>	<u>FY 81 Load</u>
<u>Army</u>					
Active	460	521	14,623	14,610	615
<u>Navy</u>					
Active	161	163	80	77	163
<u>Air Force</u>					
Active	395	444	1,873	1,869	472
DoD Total	1,016	1,128	16,585	16,556	1,250

## VIII

### RESERVE COMPONENTS TRAINING

In addition to training members of the active forces, the Service training establishments also train members of the Reserve Components. Reserve Component training, as part of individual training and education, involves Reservists and Guardsmen who are on active duty for formal school training. It does not include training of Reserve Component members provided under the following circumstances:

- Training received while members are on extended active duty (this training is included in active force aggregates);
- Training conducted by the Reserve Components themselves;
- Training received on annual active duty, except if provided through courses conducted by the active training establishment;
- Any training received while the individual is not in an active military status; as a minor exception, some Reserve and Guard technicians attend military schools in Civil Service status.

The purpose of this chapter is to summarize the amount and types of training of Reservists and Guardsmen which are conducted by the active training establishments. The training loads discussed in this chapter are included within the loads attributed to the various Reserve Components in the previous chapters.

Training of members of the Reserve Components will comprise approximately 13.0 percent of all individual training and education in FY 1981. Training loads for each of the Reserve Components for each of the major categories of training for FY 1981 are shown in the following table.

Training Loads, Reserve Components, FY 1981a/

<u>Component</u>	<u>Recruit</u>	<u>One-Station Unit Training</u>	<u>Officer Acquisition</u>	<u>Specialized Skill</u>	<u>Flight</u>	<u>Professional Development</u>	<u>Total</u>
Army Reserve	2,901	2,468	2	3,874	48	55	9,348
Army National Guard	2,662	6,839	48	4,326	93	48	14,016
Naval Reserve	317	-	40	582	-	14	953
USMC Reserve	1,674	-	346	1,109	-	15	3,144
Air Force Reserve	390	-	7	619	75	48	1,139
Air National Guard	774	-	-	991	130	35	1,930
<b>Total, Reserve Components</b>	<b>8,718</b>	<b>9,307</b>	<b>443</b>	<b>11,501</b>	<b>346</b>	<b>215</b>	<b>30,530</b>

a/ Loads in this table are a summary of Reserve Components loads displayed previously in this report, and are not additive to them.

The following table summarizes load data for entry-level Reserve Component basic qualification training for FY 1981.

Enlisted Entry-Level Training, Reserve Components, FY 1981

	<u>Inputs</u>	<u>Outputs</u>	<u>Loads</u>
Recruit Training	61,906	56,189	8,718
Initial Skill Training	48,503	43,915	8,060
One-Station Unit Training	<u>43,313</u>	<u>38,333</u>	<u>9,307</u>
Totals	153,722	138,437	26,085

Entry-level training of Reserve Component members accounts for 17.0 percent of all Recruit Training, 12 percent of all Initial Skill Training (Enlisted), and 33 percent of all Army One-Station Unit Training programmed in the Department of Defense for FY 1981.

Although entry-level training for enlisted personnel makes up about 85 percent of total Reserve Component training loads, Reserve and Guard officers and enlisted personnel beyond the initial entry stage also are trained by the active establishment. The majority of this training is at the more advanced levels of Specialized Skill Training, and fills the same demands for skill progression or new equipment training that these types of training provide for active members. Reserve Component participation in Flight Training is relatively minor, since most aviator requirements in Reserve Component units are filled by experienced aviators who join after extended service in the active components. Reserve Component participation in the professional military schools portions of Professional Development Education accounts for about 5 percent of total DoD officer training at the basic, intermediate and senior levels and about 4 percent of Enlisted Leadership Training.

Reserve Component personnel participate in a variety of non-resident courses sponsored by Service Schools; Reservists and Guardsmen make use of these training opportunities on the same basis as active personnel. For many Reserve and Guard officers, consideration for promotion depends upon successful participation in Professional Development Education programs.

Beyond the training covered in the training loads, the active training establishment makes other valuable contributions to the state of training of the Reserve Components. Perhaps the most important is realized through former active members who join the Reserve Components after having been trained on active duty. The Reserve Components also receive graduates of Army and Air Force ROTC who are not called to extended active duty.

The great majority of training of Reservists and Guardsmen is in Recruit and Specialized Skill Training and, for the two Army Components, One-Station Unit Training. Within Specialized Skill Training, most of this training is in Initial Skill Training for enlisted personnel. The combination of Recruit and Initial Skill Training or One-Station Unit Training for enlisted personnel, including Reservists and Guardsmen, provides them basic qualification training which transforms the untrained civilian into a service member with a useable skill.

Enlisted members of the Reserve Components without prior service receive the same basic qualification training as active service members. Each non-prior service enlistee in the Reserve Components undergo, as a minimum, twelve weeks of active duty training. This is carried out by sending the new recruit through Recruit Training and on through Initial Skill Training. Alternatively, many Army Guardsmen and Reservists are provided similar training in certain skills through One-Station Unit Training. Trainees who graduate from Recruit Training proceed to Initial Skill Training in their occupational specialty. This may consist of a course in a Service school or Advanced Individual Training at an Army training center. If a course in the proper skill is not available, the trainee may be assigned to on-the-job training in an active duty for training status. The actual length of active-duty training, in comparison with the statutory twelve weeks minimum, varies from twelve weeks to twelve months, depending on the occupational specialities involved.

In summary, training of members of the Reserve Components forms a significant portion of the workload of the active training establishment. Particularly at the entry level, this training is indispensable to the readiness of individuals and organizations of the Reserve Components and to the realization of the Total Force policy.

## IX

### TRAINING MANPOWER

#### General Description

Manpower associated with the individual training missions in the Department of Defense can be divided into two parts: first, the trainees and students being trained, and, second, the military and civilian manpower which conducts and supports the training. These two classes of manpower are discussed and explained in this chapter.

#### Trainees and Students

Manpower undergoing training in the Defense training establishment is defined and quantified in three different ways, each of which serves a somewhat different purpose with regard to manpower accounting and resource allocation.

1. Training Loads. These are the "military training student loads" which are detailed in Chapters III through VII of this report -- the average number of military trainees, students and cadets of each Service and component in training during a given fiscal year, which is subject to annual congressional authorization. Training loads include all military manpower of a given Service or component who are undergoing individual training, regardless of whether the training is conducted by the parent Service, one of the other Services, a DoD school, or by an agency or institution outside the Department of Defense, such as a civilian college or university. Training loads also include all military personnel in training regardless of their assignment status. Some trainees and students are assigned to the training activity; others are attending training in a temporary duty (TDY) or temporary additional duty (TAD) status while remaining assigned to their parent units; still others are attending while in transit from one permanent assignment to another.

Since training loads are an annual average and most courses are much shorter than a year in length, the actual number of students and trainees who enter training, and the number who graduate, is considerably greater than the training load. For example, the total programmed training load for Recruit Training in FY 1981 is less than 50,700, yet over 337,000 persons are to enter Recruit Training and about 313,200 are to graduate.

2. Training Workloads. The total number of trainees and students undergoing training within DoD includes some trainees and students of foreign nations, DoD civilian employees, and members of other departments and agencies of the U.S. Government, notably the Coast Guard. In addition, many U.S. military students and trainees are trained by a Service

other than their own. Consequently, the average number of students being trained by a given Service, or its training workload, usually differs from its training load. For example, the Marine Corps has a programmed Flight Training load of 705 in FY 1981; however, since the training is conducted by other Services, its Flight Training workload is zero. On the other hand, because the Navy trains many personnel from other Services and Coast Guard and foreign students as well as most of its own students, the Navy's Specialized Skill Training workload is higher than its training load.

Since training workload, in conjunction with other applicable considerations, is the major determinant of the resources (manpower, funds, materiel and facilities) required to conduct training, it, rather than training load, is appropriately used in considering the allocation of resources to a Service or a training activity. Programmed training workloads for each of the Services in FY 1981 are displayed in the following table.

Training Workloads, FY 1981  
(Thousands)

<u>Category</u>	<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>	<u>DoD</u>
Recruit	13.8	15.8	10.1	10.9	50.6
Officer Acquisition	4.6	6.1	0.5	5.6	16.8
Specialized Skill	48.5	50.4	8.0	26.6	133.4
Flight	1.8	2.3	-	3.2	7.8
Professional Development Education	2.1	2.6	0.4	2.9	7.9
One-Station Unit Training	<u>28.2</u>	-	-	-	<u>28.2</u>
Total	98.9	77.2	18.9	49.2	244.3

Note: Detail may not add due to rounding.

3. Students, Trainees, and Cadets. In the Individuals accounts of the Defense Manpower Requirements Report, military manpower is included for each Service as "Trainees and Students" and (except for the Marine Corps) "Cadets". Conceptually, this manpower represents the number of military trainees, students, cadets and midshipmen programmed to be assigned (PCS as opposed to TDY/TAD) for training on the last day of a given fiscal year. Student, trainee, and cadet manpower is similar to training load in that both represent military members of the reporting Service in training status. Nevertheless, there are substantial differences in the way the amount of manpower in these two manpower aggregations is calculated, with the result that the totals are seldom the same. The major reasons for these differences are:

- Training loads are manyears in training status, as has been mentioned, whereas trainees, students, and cadets are end-strengths, or

numbers in training on the last day of the fiscal year. Trainee, student, and cadet numbers are thus affected by the seasonality of enlistment patterns, described in Chapter III, while the element of seasonality is evened out in training loads.

- Training loads include students attending training in a temporary duty (TDY or TAD) status as well as those attending in a PCS status. In the Defense Manpower Requirements Report TDY and TAD students are carried in the categories of their parent units. In addition, some individuals attending training while in transit from one permanent assignment to another are included in training loads but are classified as "Transients" in the Defense Manpower Requirements Report.

Training loads are a more accurate measure of the amount of training which is needed to meet military requirements than are the categorizations; "trainees," "students," and "cadets."

#### Manpower in Support of Training

Military and civilian manpower is required to accomplish the individual training mission. This manpower conducts and supports instruction, operates training bases and facilities, maintains training equipment, produces training aids, provides personal and community services to students, trainees, and other military members, plans and manages training, and performs all the other tasks necessary to conduct and support individual training.

ROTC students are not military members in an active duty status and are not included in military manpower training loads. To be consistent with this treatment of ROTC students, manpower supporting ROTC programs is not included in the following manpower tables.

The following tables sum up manpower in support of training, by the general functions Conduct of Individual Training, Training Base Operating Support, and Management Headquarters. The function Conduct of Individual Training includes the following types of manpower: instructors, instructional support, school/training center staffs, student supervisors and direct training support such as training aids and literature, audio-visual resources, and instructional systems development.

DoD Manpower in Support of Training,  
Conduct of Individual Training Function  
(End Strengths, Thousands)

	FY 79		FY 80		FY 81	
	Military	Civilian	Military	Civilian	Military	Civilian
Army	36.6	10.4	37.4	10.6	37.2	10.6
Navy	24.2	3.5	26.1	3.4	27.9	3.4
Marine Corps	7.5	0.2	7.7	0.2	7.6	0.2
Air Force	16.4	5.2	18.8	5.4	18.7	5.3
DoD	84.7	19.4	90.1	19.5	91.4	19.5

DoD Manpower in Support of Training,  
Base Operating Support Function  
(End Strengths, Thousands)

	FY 79		FY 80		FY 81	
	Military	Civilian	Military	Civilian	Military	Civilian
Army	12.2	24.0	12.3	21.2	11.6	21.5
Navy	6.8	7.1	6.6	6.8	6.7	6.6
Marine Corps	3.5	1.9	3.2	1.9	3.1	1.9
Air Force	11.5	7.7	10.9	7.8	11.0	7.4
DoD	<u>34.0</u>	<u>40.6</u>	<u>33.0</u>	<u>37.7</u>	<u>32.3</u>	<u>37.4</u>

DoD Manpower in Support of Training, Management Headquarters Function  
(End Strengths, Thousands)

	FY 79		FY 80		FY 81	
	Military	Civilian	Military	Civilian	Military	Civilian
Army	0.6	0.8	0.7	0.8	0.7	0.8
Navy	0.3	0.5	0.3	0.5	0.3	0.5
Marine Corps	*	*	*	*	*	-
Air Force	0.8	0.5	0.9	0.5	0.9	0.5
DoD	<u>1.8</u>	<u>1.8</u>	<u>1.9</u>	<u>1.8</u>	<u>1.9</u>	<u>1.9</u>

\*Less than 50.

DoD Manpower in Support of Training, All Functions  
(End Strengths, Thousands)

	FY 79		FY 80		FY 81	
	Military	Civilian	Military	Civilian	Military	Civilian
Army	49.4	35.3	50.3	32.6	49.5	32.9
Navy	31.3	11.0	33.2	10.7	34.9	10.5
Marine Corps	11.0	2.1	10.9	2.1	10.7	2.1
Air Force	28.8	13.4	30.6	13.6	30.5	13.3
DoD	<u>120.5</u>	<u>61.8</u>	<u>125.0</u>	<u>59.1</u>	<u>125.7</u>	<u>58.7</u>

Service  
Est., Non-  
Training  
Attributable (15.4) (16.4)

Note: The Service estimates of non-training attributable manpower include staff and support manpower that do not contribute to the production of student output and loads but are reported as training resources in the Five Year Defense Program (FYDP). The majority of the non-training attributable manpower is for Base Operating Support (BOS) given to non-training tenant activities at training installations.

Manpower estimates in this report are based on DoD's Five Year Defense Program (FYDP). The FY 1979 report used adjusted FYDP data to reflect Service estimates on the level of manpower not attributable to training. The parenthetical entries in the above table indicate adjustments that should be made to FY 1979 based on this reporting practice. In the FY 1980 report, that practice was discontinued in order to provide information in a manner consistent with the President's Budget.

The following tables show changes in total military and civilian manpower in support of training between FY 1977 and 1981. Manpower for each year is first shown by the functions Conduct of Individual Training, Base Operating Support, and Management Headquarters.

Trends, Manpower in Support of Training,  
FY 1977-81, By General Function

(End Strengths, Thousands)

	FY 77			FY 79			FY 81			FY 77-81	Percent Change FY 79-81
	Mil	Civ	TOT	Mil	Civ	TOT	Mil	Civ	TOT		
Conduct of Individual Training	108	22	130	85	19	104	91	19	111	-15	+ 7
Base Operating Support	36	45	81	34	41	75	32	37	70	-14	- 7
Management Headquarters	2	2	4	2	2	4	2	2	4	-	-
TOTAL	145	70	215	121	62	182	126	59	184	-14	+ 1

Note: Detail affected by rounding

As the table shows, military and civilian manpower in support of training increases by 2,000 spaces or 1 percent between FY 1979 and 1981.

As shown in the following tables, training workloads are about ten percent higher in FY 1981 than in FY 1979; considered with the small increase of 1 percent in manpower in support of training, this implies a notable increase in manpower productivity.

Trends, Training Workloads, FY 1977-81  
(Thousands)

	<u>FY 77</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>Percent Change</u> <u>FY 77-81</u>	<u>FY 79-81</u>
Army	99	89	108	99	-	+11
Navy	67	70	74	77	+16	+10
Marine Corps	21	19	20	19	-10	-1
Air Force	51	43	47	49	-3	+15
DoD	238	221	244	244	+3	+10

Note: Detail affected by rounding.

Trends, Training Manpower and Training Workloads, FY 1977-81  
(Thousands)

	<u>FY 77</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>Percent Change</u> <u>FY 77-81</u>	<u>FY 79-81</u>
Manpower in Support of Training	215	182	184	184	-14	+1
Training Workloads	238	221	244	244	+3	+10

The lower level of manpower in support of training in FY 1981 is due to a number of management actions:

- Training Base Operating Support manpower is projected to be lower than in FY 1979.
- Support manpower is reduced through such innovations as the Army's One-Station Unit Training program.
- Staffing standards are being tightened generally in training activities.

The decrease in overall support manpower reflects the Department's decision to achieve substantial efficiencies in support manpower. This situation is not unique to the training community; rather it is found throughout the Department's requests for resources. The Defense Manpower Requirements Report, dated February 1980 provides more data on these initiatives.

Training Manpower Detailed by Service and Type of Training

As was noted early in this chapter, training workloads, in conjunction with other factors, are the determinants of the resources required to conduct training. The workload/resource relationship is not a simple one, but depends upon the nature of training and training support involved. For example, Flight Training normally requires a great deal of support manpower for aircraft maintenance; weapons training requires close instructor supervision for safety considerations.

Training Manpower by  
Service and Type of Training, FY 1981  
(Thousands)

Training Activity

	Army		Navy		Marine Corps		Air Force		DoD	
	Mil	Civ	Mil	Civ	Mil	Civ	Mil	Civ	Mil	Civ
Recruit Officer	3.3	0.1	1.4	*	2.4	*	0.9	*	8.0	0.1
Acquisition Specialized Skill	1.1	1.2	0.7	1.0	0.3	-	1.3	0.8	3.4	2.9
Flight Professional Development One-Station Unit Training	14.5	3.9	15.5	0.8	4.2	0.1	8.5	2.3	42.7	7.3
Medical Training Direct Training Support	1.2	0.4	9.4	0.6	0.4	-	6.0	0.9	17.1	1.9
Base Operating Support Management Headquarters	0.5	0.6	0.2	0.6	0.2	*	1.0	0.5	1.9	1.8
TOTAL	49.5	32.9	34.9	10.5	10.7	2.1	30.5	13.3	125.7	58.7

Service Estimate

Non-Training Attributable (15.4)(16.4)

\*Less than 50

Manpower data in the six categories of training (e.g. Recruit through One-Station Unit Training) includes instructors, school/training center staffs and student supervisors. Direct training support includes such items as training aids and literature, audiovisual resources and instructional systems development.

Economies of scale are also important in determination of Department of Defense training manpower requirements. Training installations tend to have relatively high overheads and "fixed" manpower. Until the training base can be realigned to take account of training workloads, the training establishment must operate its existing facilities below optimum capability levels and less efficiently than if fewer installations handled the same workload.

## TRAINING MANAGEMENT AND FUNDING

General Description

Chapters III through VII of this report describe and explain the military training student loads requested to be authorized for each military component. These student loads represent patterns and levels of training effort which require manpower and other resources. The purpose of this chapter is to describe and explain the resources (other than manpower which is discussed in Chapter IX), funding and costs associated with the conduct of individual training.

In considering training resources, it is important to distinguish between the training loads required by a Service but conducted in part outside the Service, and the workloads representing training conducted by the Service. As discussed in the previous chapter, the workloads, which represent training conducted by a Service, are the basis for resource requirements (manpower, materiel, facilities, and funds) needed to conduct and support the training which the Service executes.

Management of Individual Training

Detailed management of individual training is carried out by the four Military Services. Each of the Services, except the Marine Corps, has a training commander immediately subordinate to the Service chief who is responsible for most of the individual training conducted within that Service. Some training is managed directly by the Service headquarters. However, the most prevalent pattern of control is through a training command headquarters that manages most Service military schools, training centers, and other training facilities.

Staff Responsibilities

Within the Office of the Secretary of Defense, staff responsibility for individual training and education policies rests with the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics), with a strong influence over the allocation and use of resources being exercised by the Assistant Secretary of Defense (Comptroller). The staffs of these two offices work closely together in the management of DoD individual training and education. Other OSD offices, such as Health Affairs, Intelligence, and Research and Engineering, participate as appropriate. The OSD role is generally one of policy formulation, allocation of resources, overview of Service training programs, and coordination among the Services.

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Within each Service headquarters, a principal staff officer has responsibility for individual training. Other staff members may have primary responsibility for certain types of training, as, for example, a Service Surgeon General for professional medical training. Other staff members have collateral responsibilities for the allocation of manpower and funds to the training function.

Primary responsibility on the Army staff for individual training rests with the Deputy Chief of Staff for Operations and his subordinate, the Director of Military Personnel Management. Within the Navy, the principal staff officer is the Deputy Chief of Naval Operations, Manpower, Personnel, and Training. Headquarters, Marine Corps, manages training through the Deputy Chief of Staff for Operations and Training and his subordinate, the Director of Training. Commanders of the separate major subordinate training activities report directly to the Commandant of the Marine Corps, dealing with the headquarters training staff. Within the Air Force, the Director of Personnel Programs, under the Deputy Chief of Staff for Manpower and Personnel, has staff responsibility for individual training.

#### Training Commands

The Army, Navy and Air Force each has a command headquarters which manages most of the individual training conducted by that Service.

The Army's principal training command headquarters is Headquarters, Training and Doctrine Command (TRADOC), located at Fort Monroe, Virginia. TRADOC's control is exercised through training installation and school commanders throughout the United States.

The Chief of Naval Education and Training, headquartered at Pensacola, Florida, exercises control, through subordinate functional commanders, of education and training conducted in training centers, schools and programs throughout the Navy.

Headquarters, Air Training Command, at Randolph Air Force Base, Texas, directly controls individual training centers and units.

The Service-wide training commands are not responsible for all individual training and education conducted. As already noted, the Surgeons General are responsible for most health professional and medical technical training. Other examples include the Service Academies, which are under the responsibility of the respective Service Chiefs.

#### Training Facilities

Appendix B lists the principal individual training facilities of the four Services for each of the major categories of training. Projected average training work-loads and training support manpower for FY 1981 are also shown for each facility listed.

### Training Funding and Costs

The training costs addressed in this section include funding in the President's Budget for Fiscal Year 1981 requested for individual military training and education. These costs differ from life-cycle costs, which would take account of retirement and other costs that are not funded during FY 1981. Depreciation costs of training facilities and equipment are not included, although training investment costs estimated for FY 1981, such as procurement and construction costs, are included.

The report uses the data in the DoD's Five Year Defense Program (FYDP) as the basis for all estimates of the manpower and funds devoted to training and education. In the FY 1979 report, the Services adjusted FYDP data to eliminate certain resources which, in their judgment, were not attributable to training. However, the Planning, Programming and Budgeting System (PPBS) of the Department considers all these resources in allocating resources to training. In the FY 1980 report the funding exhibits were changed to be consistent with the overall Defense management structure. This is a major improvement to the report because it facilitates the comparison of data in the report to data in other DoD budget and planning documents.

Appendix C shows estimated adjustments made by the Services for FY 1979. These adjustments are mainly in resource allocations for management headquarters and base operating support. The adjusted data will enable users to compare the resources attributed to training under the reporting practice used in FY 1979.

The costs in this chapter include funding for military pay and allowances for both PCS and TDY/TAD students, pay and allowances of military and civilian personnel in support of training, training related PCS costs, base operating costs in support of training, training-related operations and maintenance costs (including civilian support personnel pay and allowances), training investment costs for construction and procurement, and overhead costs for training administration and command.

For a given Service, the requirement for funding for training arises from two factors: first, the need to fund the pay and allowances of its own military training student loads, regardless of where or by whom the students are trained; and, second, the need to provide for the level of individual training and education effort necessary to meet the Service's commitments to accomplish training for its own and other students.

Funding estimates used here exclude the funding requested and justified in budget documents for programs not included in the training loads requested and explained in this report (e.g., ROTC).

Total load-related training funding, by Service and major training category, is detailed in the following table for FY 1981. Special

caution should be exercised in using these costs for comparisons among Services. Differences in missions among the Services, differing operating and training conditions, and differences in the mix of component Service training programs, degrade the soundness of comparisons based on aggregated data such as these.

Funding of Individual Training  
by Service and Type of Training, FY 1981  
 (\$ Millions)

	<u>Army</u>	<u>Navy</u>	<u>USMC</u>	<u>Air Force</u>	<u>DoD</u>
Recruit	144.8	322.5	130.0	139.0	736.3
Officer Acquisition	81.0	80.3	11.6	101.9	274.7
Specialized Skill	634.5	756.4	170.1	451.2	2,012.1
Flight	205.8	380.9	27.8	373.0	987.5
Professional Development Education	98.4	80.8	17.7	101.7	298.6
One-Station Unit Training	291.0	-	-	-	291.0
Medical Training	128.3	53.4	-	77.0	258.6
BOS and Direct Training Support	1,279.1	413.7	107.4	588.7	2,388.9
Management					
Headquarters	41.0	20.9	0.3	33.5	95.7
PCS Cost for Training	330.0	108.7	43.2	41.5	523.5
TDY and Reserve Component Pay and Allowances	552.8	119.0	59.0	173.7	904.5
Total	3,786.5	2,336.5	567.1	2,081.2	8,771.4

Note: May not add due to rounding.

Student pay and allowance totals for a Service's requested military student training load have been added to pay and allowances for the staff and support manpower for each Service's workload. This can produce significant distortions in the use of these aggregates for assessing training efficiency (e.g., in the Marine Corps where significant loads are trained by other Services).

Appendix C shows a distribution of funds in the table above by appropriation.

The table on page X-4 includes substantial segments of cost which are not normally sensitive to significant shifts (say up to fifteen percent) in training load. These include certain command, base, facility, and equipment costs. These "fixed" costs need to be considered in program and budget adjustments because, within a reasonable range of output, they remain approximately the same and do not vary as the training load varies. They change, instead, with decisions to change the manner of accomplishing training, most often through training investment decisions or base realignments.

It should be noted that there are often substantial year-to-year fluctuations in funding for fixed costs. These costs are termed "fixed", not because they do not change from year to year, but because their changes characteristically are not "variable" with changes in workloads from period to period. Funding of these costs reflects significant increases, however, for years in which there are major procurements of, for example, simulators, aircraft, or construction in support of training.

Thus, the proportion of total funding requested to support training differs significantly among the Services and among categories of training; the proportion in the short run, however, is seldom less than one-third of total cost. This has important implications for the extent of funding adjustments appropriate to changes in the level of activity or size of a training program. Other things equal, if training funds are to be adequate for the needs of a reduced program, they must be reduced by a smaller proportion than the program loads in order to account for fixed costs. By the same token, program increases, within reasonable capacity limits, may not require a proportional increase in total program funding.

Training costs are affected by inflation, both because of price rises for goods and services and because of the pay of the military and civilian personnel involved as students, instructors, and support. Some training program costs are strongly affected, in addition, by energy cost increases, especially in flight training.

## TRAINING IMPROVEMENTS

General Description

The purpose of this chapter is to discuss some of the actions being taken by the Department of Defense to make individual training more effective in producing qualified graduates or more efficient in its use of resources.

Interservice and Joint Training

Interservice training is training performed by one Service for one or more of the other Services; joint training is that conducted in a school with a multi-Service faculty, usually operating under a Defense-wide charter. The distinction is not important for the purpose of this report, since both types of training act to lessen duplication of training among the Services and to make better use of resources. "Joint training" will therefore be used in this report to describe all cooperative training arrangements among the Services.

Interservice and joint training arrangements have existed for many years, but systematic efforts to increase the amount of those types of training have been in effect for about seven years. Essentially, each Service historically had been responsible for training its own members to satisfy its own requirements. To carry out this responsibility, each Service had developed and maintained training bases, activities and programs to meet its own requirements. With some exceptions, little emphasis had been placed on the potential for structuring training systems which are usable by other Services. The major exception has been Navy training of Marines, particularly in Flight Training and other aviation-related skills.

Advantages and Limitations of Joint Training. Significant efficiencies in facilities, staffs, and support establishments, and in operating costs, may be realized by reducing the total number of training activities and combining them into fewer and larger organizations. Another advantage of consolidation is better utilization of equipment and systems required to support courses of instruction. Joint training also stimulates the interchange of new training ideas and methods.

With regard to the practical limitations to the use of joint training, it is preferable and cost effective for each Service to provide the first phase of training to its own new members in order to orient and motivate them to the unique roles and missions of that Service and to inculcate the Service's standards, customs, and traditions. This is accomplished in Recruit Training and Officer Acquisition Training. For practical purposes, then, joint training is limited to Specialized Skill Training, Flight Training and Professional Development Education; to a degree, the uniqueness of Service roles and missions are also a limiting factor in these types of training.

Beyond this consideration, another limitation to the extension of joint training is that Service training facilities are sized, in many cases, to accommodate only their own students, and consolidating courses or schools may require additional facilities. Other limitations are differing skill requirements among the Services, the diversity of equipment used by the Services, possible excessive travel costs if interservice facilities are not economically located for joint use, and the possibility that a joint training center would not meet Service needs in the event of mobilization for some particular reason.

The general criteria used to determine what training will be conducted jointly are that joint training should not lead to unacceptable loss of training quality or failure to meet valid requirements of the participating Services; that it should not require a capital investment in either facilities or equipment, or other one-time costs, which cannot be amortized over a reasonable period of time; and that the courses under consideration should have sufficient commonality to allow for common-core training or enough common equipment utilization to produce savings.

Mechanisms for Increasing Joint Training. The primary mechanism for increasing joint training within DoD is the Interservice Training Review Organization (ITRO), directed by the training chiefs of the four Services and comprised of interservice committees and working groups. The committees and working groups perform the detailed analysis which leads to decisions on the feasibility of consolidation or other cooperative arrangements among the Services. When the Services cannot reach agreement on an issue, the potential for consolidation is further analyzed by the Office of the Secretary of Defense and a decision may be recommended to the Secretary of Defense.

Joint Training in FY 1981. The following table shows, for each Service (active and Reserve Components combined), the amount of training it expects to have conducted by one of the other three Services or DoD schools in FY 1981.

Loads Trained by Other Services or in DoD Schools, FY 1981  
 (Active and Reserve Component, Thousands)

	<u>Trained By Other Service or DoD Schools</u>	<u>Total Parent Service Loads</u>	<u>Percent Trained By Other Services or DoD Schools</u>
<b>Specialized Skill Training</b>			
Army	1.9	43.6	4
Navy	1.0	40.4	2
Marine Corps	4.0	12.4	32
Air Force	1.8	25.5	7
DoD	8.6	121.9	7
<b>Flight Training</b>			
Army	-	1.5	-
Navy	0.1	1.4	7
Marine Corps	0.7	0.7	100
Air Force	0.1	2.9	3
DoD	0.9	6.5	14
<b>Professional Development Education</b>			
Army	0.4	3.5	11
Navy	0.3	1.8	14
Marine Corps	0.2	0.7	32
Air Force	0.3	3.5	7
DoD	1.1	9.6	11

The figures above do not include the members of the host Service who are being trained in the same courses with members of other Services. For example, the figures for Specialized Skill Training include Marines being trained as tank crewmen by the Army but not the much larger number of Army trainees in the same course.

The following table lists some of the major skill areas or courses which are conducted as joint training.

SELECTED MAJOR COURSES/SKILL AREAS TRAINED IN OTHER SERVICES

Sponsoring Service	Major Interservice Course/ Skill Areas	Other Participating Services
Army	Undergraduate Helicopter Pilot Training	Air Force
Army	Construction Equipment Operator	Marine Corps Air Force
Army	Airborne	Navy Marine Corps Air Force
Army	Artillery	Marine Corps
Army	Armor	Marine Corps
Army	Explosive Ordnance Disposal	Navy Air Force
Army	Medical Lab Technician	Navy
Army	Redeye Missile	Marine Corps
Army	Satellite Communication Fundamentals	Navy Air Force
Army	Tracked Vehicle Repair	Marine Corps
Army	Security Police Correction Management Training	Air Force Marine Corps
Army	Postal Clerk	Navy Marine Corps
Army	Foreign Language Training	Navy Marine Corps Air Force
Army	Information Specialist	Navy Marine Corps Air Force
Navy	Aviation Maintenance	Marine Corps Coast Guard

<u>Sponsoring Service</u>	<u>Major Interservice Course/ Skill Areas</u>	<u>Other Participating Services</u>
Navy	Cryptologic Courses	Army Marine Corps Air Force
Navy	Diving	Army Marine Corps Air Force Coast Guard
Navy	Musician	Army Marine Corps
Navy	Electronic Principles	Marine Corps Air Force
Navy	Cryptographic Maintenance	Marine Corps Air Force Coast Guard
Navy	Teletype Maintenance	Marine Corps
Air Force	Navigator Training	Navy Marine Corps
Air Force	Tempest (Cryptologic Courses)	Army Navy Marine Corps
Air Force	Cryptologic Equipment Maintenance	Army Navy Marine Corps
Air Force	Precision Measurement Training	Army Marine Corps
Air Force	Aircraft Pneudraulic Repair	Army
Air Force	Weather Training	Army Navy Marine Corps
Air Force	Military Dog Handler	Army Navy Marine Corps
Air Force	Law Enforcement	Navy Marine Corps

<u>Sponsoring Service</u>	<u>Major Interservice Course/ Skill Areas</u>	<u>Other Participating Services</u>
Air Force	Fire Control Specialist	Army Marine Corps
Air Force	Nondestruct Inspection	Army Navy Marine Corps
Air Force	Defense Sensor Interpretation and Application Training	Army Navy Marine Corps
Air Force	Air Intelligence Training	Army Navy Marine Corps
Air Force	Lineman Training	Army Marine Corps
Air Force	Professional Comptroller	Army Navy Marine Corps
Air Force	Radio Communications Analysis	Army Navy Marine Corps
Air Force	Voice Processing	Army Navy Marine Corps
Air Force	Cryptoanalysis	Army Marine Corps

## Training Technology

The Military Services have been the leaders in the development and use of training technology for many years. Training technology is used to improve the efficiency and effectiveness of military training and, in some cases, to provide training which cannot be provided in any other way. The term "training technology" is used here to encompass methods to structure training courses and the use of hardware, such as computers or simulated equipment for instruction.

Instructional Systems Development. Training effectiveness measures are part of the Instructional Systems Development (ISD) process used by the four Services. Instructional Systems Development is intended to insure that

- o Courses are designed to teach only those tasks which, based upon objective field research and analysis of the tasks needed to be performed, the graduate will use and which can most efficiently and effectively be taught in a formal training course.
- o Tests, the requisite for graduation, are accurate indicators of the ability to perform the required tasks.

Phase One of the ISD process includes five steps: analyzing the job; selecting tasks for training; constructing job performance measures; analyzing existing courses; and selecting the organizational setting.

Phase Two of the ISD process, the design phase, includes detailing training objectives and tests, describing student entry characteristics, and determining the sequence and structure of the training. The objectives result from the job analysis of what is actually performed in the field. The tests are designed to determine if the students meet each objective rather than how well the students perform in relation to the other students in the course.

The development of the training, Phase III of the ISD process, includes specification of learning activities, the instructional management plan and delivery system, reviewing and selecting available existing materials, and developing and validating new instruction. Validation of the instruction is important in that it insures that the training teaches what it is designed to teach before it is put into operation.

Phase IV of ISD, the implementation of the instruction, includes using the complete management plan and conducting the actual course in its designated setting.

The final phase of ISD is quality control--as long as the training is being offered, the effectiveness of the training is monitored.

- o Internal evaluations consist of collecting progress data, process data, performance data, and pertinent data from students, instructors and administrators to insure that the actual learning outcomes equal the intended learning outcomes.
- o External evaluations require following graduates of the training program to their job assignments to determine whether they can do the job for which they were trained. Data are collected through job performance measures, questionnaires to supervisors and graduates, and personal interviews. Informal feedback to the external evaluation process includes comments from field commanders on the quality or comprehensiveness of the training as evidenced by the performance of graduates, results from unit training exercises showing deficiencies in graduates' skills, and performance of graduates on skill qualification tests and skill knowledge tests for promotion.

Specialized Skill Training courses use job task analysis for course design and mixtures of performance-based end-of-course tests, field performance surveys or visits, results of promotion tests and field initiated feedback to measure the effectiveness of the training. Job task analysis is less appropriate for Professional Development Education because it is not directed toward acquisition of specific skills. Professional Development Education is concerned with broader professional development goals in such subjects as engineering, management, and military science. Course design and effectiveness measures for Professional Development Education are more appropriately determined by panels of experts from the field, the school, and the civilian community.

The Defense training establishment uses measures of effectiveness to insure that its training establishment is doing its job. Measures wherever possible are performance-based. Performance based tests are hands-on tests to determine, for example, whether a nurse can read a blood pressure meter or a rifleman can fire a qualifying score with an M-16. Military training is conducted on a pass-fail basis. If the trainee can perform the required tasks he graduates; if he cannot he is either retrained, enrolled in a different type of training, or discharged. Field follow-up evaluations insure that training is relevant to tasks performed in the field and that graduates can perform the tasks well.

Each Service uses Instructional Systems Development (ISD) to determine what should be taught in a given course and the most effective and efficient way of conducting the instruction. Tasks which can most effectively be taught in a formal training setting become the basis of the course; those which can be effectively learned on the job are taught in the operational unit. The course is then structured to teach the essential tasks in the most effective and efficient way.

Application of Training Technology in the Field Units. Although the training establishment exists primarily for the support of individual training programs, certain innovations initiated within the training establishment have important benefits in crew and unit training in the field. Unit training benefits the individual in increasing his proficiency as well as making him a more effective member of the unit.

For example, the Services are using various engagement simulation devices to train under conditions more nearly approaching combat than anything before available. To teach battle skills to infantry units, an engagement simulation system based upon low power lasers and microcomputers has been developed. Training units are furnished with rifles, machine guns, tank and anti-tank weapons that are equipped with eye-safe lasers. Sensors, connected to a microcomputer carried by each man or weapon, are mounted on each infantryman, vehicle, and weapon. When a weapon is "fired" a blank round is fired from the weapon and a light beam containing a distinctive code is emitted from the laser. Any sensor that detects the beam records a "kill" if the sensor is located in an area where a hit from that kind of weapon would normally disable the target. The computer signals the soldier when he has been hit and automatically disables his weapon, removing him from the exercise. These and other simulators not only make possible improved combat readiness, but they also possess the potential for cost savings through reduced ammunition expenditures.

The sole objective of individual training for military personnel is to produce knowledgeable, disciplined, dedicated service members who are capable of functioning effectively in the military job structure and contributing to the combat capability and mission readiness of military units.

The Department of Defense will continue to take advantage of available and emerging training technology from these initiatives and from other training research and development activities to improve the quality of training and to reduce training time and costs.

## APPENDIX A

### DETERMINING TRAINING REQUIREMENTS

Discussions of the determination of training requirements in this report reflect a generally uniform approach. The following overview of the methodology for assessing and calculating training requirements is provided as a framework for understanding this approach. As noted, details in calculation may differ to some extent among the Services and among the training categories.

#### Requirements

All training is accomplished to satisfy the need for personnel with certain types and levels of skills to man the approved or projected force. The Services, over the years, have developed detailed, systematic methods of determining the manpower needed to man and support the forces. The Manpower Requirements Report discusses this process. From these force requirements for manpower, the need for trained personnel with specific skills can then be derived. For example, a given force structure establishes the number of trained enlisted personnel needed. The number of authorized positions within that force structure for radar technicians establishes the basic requirement for trained personnel with that skill. This process is reiterated on a phased basis for all skills and skill levels for each Service, for both officer and enlisted skills. The total of all personnel in all skills needed to perform all the jobs in the force at a point in time represents the total requirement for trained manpower projected for that date.

#### Inventory Projections

The requirements identified through this process must be measured against the available assets, in terms of trained personnel on hand in each skill and skill level. From this asset base, estimates are made of how many trained personnel will be available at various points of time in the future. These estimates take into account probable rates of change to the current inventory -- through reenlistment, promotion, discharge, death, retirement, or other causes. These estimates are based on the best historical information available, tempered by judgment of how in the future personnel policies, the state of the economy, behavioral patterns, and other factors, many of them difficult to predict, will affect the probabilities that a trained individual will remain in the Service. A comparison of skill requirements and skill inventory projections, over time, establishes the extent of shortage or surplus likely to exist in each skill area by month and year. Adjusting the inventory may entail retraining personnel who are in surplus skills, but to a much greater degree, adjustment is likely to require the training of new accessions at entry level in shortage skill areas. The process

places a demand on the personnel management and training establishments continually to analyze information about attrition as it occurs, by skill and skill level, in order to produce the right number of trained personnel with the proper skills needed to restore and maintain the balance of the skill inventory. The workload thus placed on the training establishment is detailed by graduates needed from courses of various lengths and is measured in terms of average student load, or "training load."

#### Average Training Loads

Resources (men, money, and materiel) needed for any particular category of training vary with the number of students undergoing training at any given time. Facilities must be constructed and maintained to accommodate these students in training. The training establishment must maintain a sufficient staff of qualified instructors to conduct instruction for the "load" of students. Students and Trainees, as described in the "Individuals" chapter of the Manpower Requirements Report, must be programmed to account for the fact that these personnel are in formal school training and are not available for duty with operational units. All of these personnel must be paid, housed, and supported. The basis for establishing these resource requirements is the "average training load."

The aggregate training load of courses of instruction within a given training category or sub-category for a given period is computed in accordance with the the following formula, except as noted:

$$L = \frac{\sum_{i=1}^n \frac{E_i + G_i}{2} t_i}{y}$$

where L is Average Training Load,

i is a class (1,2,...n) scheduled for a training course within the training category under consideration,

E is number of expected entrants to scheduled class i,

G is number of expected graduates from scheduled class i,

t is the calendar length of the syllabus of class i, and

y is the length of a calendar year expressed in the same units as t (1 year = 12 months = 52 weeks = 365 days).

Fractions of carryover classes conducted during the year are included as though they were separate classes. However, individuals remaining in class at the end of a period are not counted as graduates, nor are individuals already in a class at the beginning of a period counted as entrants except for purposes of computing training loads for these fractions of courses.

The training load for a category or sub-category of training (e.g., Specialized Skill Training or Functional Training within that category) is the sum of the loads computed for all classes of courses within the category or sub-category.

This method of computation implies "straight-line" attrition, under an assumption that net class attrition occurs at a constant rate during a course. In the relatively few cases when attrition patterns experienced characteristically produce a significantly different distribution of attrition, the more appropriate attrition pattern is used in lieu of the term E + G.

2

Since attrition varies for different training programs and is not always spread uniformly throughout the length of a course of training, determining training loads becomes a complex problem in estimation. This process of estimation involves two related factors.

First, across the spectrum of training programs that are within the scope of this report, attrition varies from nearly zero to as high as 25 to 30 percent. Most officer Professional Development Education programs have practically no attrition. For FY 1981, the Services estimate that about 9 percent of new recruits, on a DoD average basis, will not complete Recruit Training because they will be found, in the course of undergoing training, not to have the mental or physical qualifications, or the motivation, for military life. Of these, some will fall ill or go absent without leave. Attrition rates in Specialized Skill Training vary widely, with the longer and more demanding courses tending to have higher losses. Pilot training is near the top of the scale in attrition; the higher rate of losses is based on lack of aptitude or motivation for flying, accidents, and similar causes which are intensified in this type of training. While historical data provide a basis for projecting attrition rates for all types of training, there is a considerable possibility for error based on variance in such factors as student quality and motivation.

A second necessary step in evaluating the effect of attrition is to estimate the phasing of attrition for each training program. In some courses, attrition tends to be higher in the early stages of a course when the inept and those lacking motivation are discovered. In other courses, the bulk of attrition may occur toward the end of the course. The patterns of losses vary widely among types of training and, to the detriment of precise planning, over time. The complexities of the

attrition variable makes it necessary for the Services to use computer simulations in their training load calculations which take into account the rates and time-phasing of attrition.

An additional variation is introduced into the conceptual process of forecasting requirements and planning training loads as described above by the seasonal and cyclical nature of new accessions to the Services. Inputs to many of the more stable training programs -- Professional Development Education, Flight Training, the Service Academies, and the most advanced portions of Specialized Skill Training -- are readily predictable. Inputs to the training programs which are dependent on new accessions, Recruit Training and Initial Skill Training for graduates of Recruit Training, are considerably more volatile. The volume of inputs to these types of training depends on such intangibles as job opportunities in the civilian economy and the decisions of young people to enlist, delay enlisting, or not enlist. Moreover, enlistments are seasonal in nature, following a long-term pattern of "good" and "bad" recruiting months, whereas phased requirements may move independently of these seasonal patterns. As a result, training loads for the initial active duty training programs are generally based on a compromise involving the timing of predicted enlistments and the capacity of the training base as well as when the new personnel are needed to fill vacancies in the job structure. Most of the courses in these programs are relatively short, and program adjustments can readily be made.

APPENDIX B

INDIVIDUAL TRAINING FACILITIES BY MAJOR LOCATION  
AND TRAINING CATEGORY, FY 1981

<u>Facility Location</u>	<u>Student Workload</u>	<u>Training Staff E/S <sup>a/</sup></u>	
		<u>Military</u>	<u>Civilian</u>
<b>A. Recruit Training</b>			
<b><u>Army</u></b>			
Fort Dix, NJ	2,490	644	5
Fort Jackson, SC	5,861	1,205	43
Fort Knox, KY	1,319	430	30
Fort Leonard Wood, MO	2,405	627	26
Fort McClellan, AL	1,359	289	2
Fort Sill, OK	334	60	0
<b><u>Navy</u></b>			
Great Lakes, IL	6,168	551	2
Orlando, FL	5,061	455	0
San Diego, CA	4,587	407	10
<b><u>Marine Corps</u></b>			
Parris Island, SC	4,382	1,283	5
San Diego, CA	4,044	1,135	5
<b><u>Air Force</u></b>			
Lackland Air Force Base, TX	10,944	940	18

a/ Reflects manpower end-strength (E/S) to include instructors, school/training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

<u>Facility Location</u>	<u>Student Workload</u>	<u>Training Staff E/S</u>	<sup>a/</sup>
		<u>Military</u>	<u>Civilian</u>

**B. Officer Acquisition Training**

Army

Fort Benning, GA	296	49	3
Fort Monmouth, NJ	282	44	20
West Point, NY	4,053	982	1,200

Navy

Annapolis, MD	4,425	651	916
Newport, RI	900	81	13
Pensacola, FL <sup>b/</sup>	161	-	-

Marine Corps

Quantico, VA	457	231	3
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Air Force

Colorado Springs, CO	4,253	1,023	755
Lackland Air Force Base, TX	1,366	275	21

a/ Reflects manpower end-strength (E/S) to include instructors, school/training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

b/ Manpower not separately identified by training category in manpower documents.

<u>Facility Location</u>	<u>Student Workload</u>	<u>Training Staff</u>	<u>E/S<sup>a/</sup></u>
		<u>Military</u>	<u>Civilian</u>

C. Specialized Skill Training

Army

Aberdeen Proving Ground, MD	3,481	1,122	202
Charlottesville, VA	163	28	37
Fort Belvoir, VA	1,167	483	102
Fort Benning, GA	2,808	1,081	134
Fort B. Harrison, IN	2,444	379	92
Fort Bliss, TX	1,442	958	265
Fort Bragg, NC	446	618	90
Fort Devens, MA	828	773	100
Fort Dix, NJ	53	25	23
Fort Eustis, VA	1,684	864	215
Fort Gordon, GA	3,670	1,326	400
Fort Huachuca, AZ	942	437	140
Fort Jackson, SC	3,354	680	40
Fort Knox, KY	2,439	1,121	240
Fort Lee, VA	4,519	1,134	360
Fort L. Wood, MO	1,663	463	21
Fort McClellan, AL	630	405	50
Fort Rucker, AL	870	322	75
Fort Sam Houston, TX	6,073	1,543	509
Fort Sill, OK	2,019	982	274
Fort Wadsworth, NY	140	68	23
Monterey, CA	2,935	201	573
Redstone Arsenal, AL	1,168	879	306
Rock Island, IL	381	0	80
Savanna Army Depot, IL	136	0	50
Texarkana, TX	174	0	40
Fort Ord, CA	88	46	18
Norfolk, VA	260	72	0

a/ Reflects manpower end-strength (E/S) to include instructors, school/training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

<u>Facility Location</u>	<u>Student Workload</u>	<u>Training Staff E/S <sup>a/</sup></u>	
		<u>Military</u>	<u>Civilian</u>
<u>Navy</u>			
Athens, GA	344	38	15
Bethesda, MD	258	48	0
Charleston, SC	547	466	10
Dam Neck, VA	1,613	1,251	56
Denver, CO (Medical) <sup>b/</sup>	56	-	-
Great Lakes, IL	9,314	1,689	34
Groton, CT	2,330	820	14
Gulfport, MS	391	120	12
Idaho Falls, ID	805	534	0
Indian Head, MD	342	82	6
Jacksonville, FL	269	151	9
Lakehurst, NJ	429	165	8
Little Creek, VA	667	147	12
Mayport, FL	238	108	2
Memphis, TN	7,948	1,035	192
Meridian, MS	845	99	9
Newport, RI	725	372	29
Norfolk, VA	1,821	770	33
Oakland, CA	122	22	0
Oceanside CA	28	257	0
Orlando, FL	4,922	461	16
Pearl Harbor, HI	454	358	12
Pensacola, FL	2,360	761	50
Philadelphia, PA	389	82	4
Port Hueneme, CA	507	149	26
Portsmouth, VA	298	64	4
Sam Houston, TX	78	6	0
San Diego, CA	9,346	2,615	200
San Francisco, CA	195	89	33
Schenectady, NY	593	634	0
Vallejo, CA	920	475	0
Washington, D.C.	106	75	4
Windsor, CT	221	149	0
Whidbey Island, WA	150	121	1

a/ Reflects manpower end-strength (E/S) to include instructors, school/training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

b/ Manpower not separately identified by training category in manpower documents.

<u>Facility Location</u>	<u>Student Workload</u>	<u>Training Staff E/S</u>	<u>a/</u>
		<u>Military</u>	<u>Civilian</u>

Marine Corps

Albany, GA	38	30	2
Camp Lejeune, NC	2,247	793	23
Camp Pendleton, CA	1,372	450	7
Parris Island, SC	370	31	0
Quantico, VA	1,553	1,019	40
San Diego, CA	317	56	0
Twentynine Palms, CA	1,523	514	48

Air Force

Chanute Air Force Base, IL	4,235	1,229	502
Fairchild Air Force Base, WA	193	272	20
Goodfellow Air Force Base, TX	1,056	302	27
Homestead Air Force Base, FL	45	105	2
Keesler Air Force Base, MS	6,359	1,601	647
Lackland Air Force Base, TX	2,336	844	130
Lowry Air Force Base, CO	3,648	1,509	351
Sheppard Air Force Base, TX	3,336	906	495

a/ Reflects manpower end-strength (E/S) to include instructors, school/training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

<u>Facility Location</u>	<u>Workload</u>	<u>Training Staff E/S <sup>a/</sup></u>	
		<u>Military</u>	<u>Civilian</u>

D. Flight Training

Army

Fort Rucker, AL	1,790	1,233	420
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Navy

Chase Field, TX	177	1,307	137
Corpus Christi, TX	258	1,036	137
Kingsville, TX	177	1,369	90
Meridian, MS	112	1,005	63
Pensacola, FL	743	1,474	194
Whiting Field, FL	936	1,730	60

Air Force

Columbus Air Force Base, MS	359	1,048	103
Lackland Air Force Base, TX	56	12	1
Laughlin Air Force Base, TX	422	1,164	155
Mather Air Force Base, CA	787	754	157
Randolph Air Force Base, TX	176	702	156
Reese Air Force Base, TX	425	1,120	216
Sheppard Air Force Base, TX	134	179	24
Vance Air Force Base, OK	406	369	40
Williams Air Force Base, AZ	454	1,368	228

a/ Reflects manpower end-strength (E/S) to include instructors, school/training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

<u>Facility Location</u>	<u>Workload</u>	<u>Training Staff E/S</u> <sup>a/</sup>	
		<u>Military</u>	<u>Civilian</u>

E. Professional Development Education

Army

Carlisle Barracks, PA	229	106	116
Fort Belvoir, VA	212	39	169
Fort Bliss, TX	252	101	26
Fort Leavenworth, KA	839	177	145
Fort McNair, DC	319	91	176

Navy

Monterey, CA	1,374	104	320
Newport, RI	472	160	154
Norfolk, VA	336	20	72

Marine Corps

Quantico, VA	364	203	49
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Air Force

Gunter Air Force Station, AL	229	58	7
Maxwell Air Force Base, AL	1,499	455	171
Wright-Patterson Air Force Base, OH	864	200	223

a/ Reflects manpower end-strength (E/S) to include instructors, school/training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

<u>Facility Location</u>	<u>Student Workload</u>	<u>Training Staff E/S</u>	<sup>a/</sup> <u>Military Civilian</u>
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F. One-Station Unit Training (OSUT)

Army

Fort Benning, GA	5,507	1,592	22
Fort Bliss, TX	1,413	588	26
Fort Dix, NJ	2,390	559	8
Fort L. Wood, MO	4,066	1,248	75
Fort Sill, OK	3,489	859	57
Fort Gordon, GA	4,876	1,282	172
Fort McClellan, AL	2,529	534	19
Fort Knox, KY	4,010	1,474	159

<sup>a/</sup> Reflects manpower end-strength (E/S) to include instructors, school/training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

APPENDIX C

SUMMARY OF TOTAL FUNDING FOR INDIVIDUAL  
TRAINING AND EDUCATION, BY SERVICE  
AND APPROPRIATION, FY 1979-81  
(\$ millions)

FUNDING RELATED TO MILITARY STUDENT TRAINING LOADS

<u>Appropriation</u>	FY 79	FY 80	FY 81
<u>Army</u>			
Operations and Maintenance	\$1,287.8	\$1,473.7	\$1,701.5
Military Personnel	1,551.8	1,573.3	1,650.9
Reserve Personnel	75.1	85.1	102.0
National Guard Personnel	169.6	174.2	197.4
Aircraft Procurement	45.4	26.3	7.5
Missile Procurement	0.5	4.6	0.7
Procurement Weapons and Tracked Combat Vehicles	71.3	34.3	-
Procurement of Ammunition	14.5	6.5	14.0
Other Procurement	23.3	35.5	42.2
Military Construction	85.0	120.4	70.4
Total Army	\$3,324.4	\$3,534.0	\$3,786.5
Service Estimate, Non-training Attributable	(465.3)		
<u>Navy</u>			
Operations and Maintenance	\$ 515.9	\$ 622.4	\$ 698.6
Military Personnel	1,252.4	1,361.2	1,420.3
Reserve Personnel	9.6	11.7	13.3
Aircraft Procurement	64.8	62.7	74.3
Other Procurement	85.1	93.4	87.1
Military Construction	63.8	35.3	43.0
Total Navy	\$1,992.2	\$2,187.4	\$2,336.5
Service Estimate, Non-training Attributable	(255.9)		

Marine Corps

Operations and Maintenance	\$ 102.2	\$ 112.6	\$ 123.3
Military Personnel	379.4	415.0	393.1
Reserve Personnel	23.8	29.9	31.6
Procurement	9.6	2.3	19.2
Total Marine Corps	\$ 515.0	\$ 559.7	\$ 567.1

<u>Appropriation</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>
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Air Force

Operations and Maintenance	\$ 590.8	\$ 693.6	\$ 791.6
Military Personnel	1,151.7	1,071.1	1,161.4
Reserve Personnel	22.9	28.9	34.2
National Guard Personnel	17.2	19.6	20.8
Aircraft Procurement	14.4	16.6	29.5
Other Procurement	10.7	11.0	12.6
Military Construction	28.4	22.9	31.2
Total Air Force	\$1,836.1	\$1,863.8	\$2,081.2

Service Estimate, Non-training Attributable	(180.8)
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Total Department of Defense	\$7,667.7	\$8,144.9	\$8,771.4
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Total Service Estimates, Non-training Attributable	(902.1)
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Note: Totals may not add due to rounding. These totals exclude funding for individual education and training programs for which loads are not requested and for which funds were not shown in the funding tables in Chapter X (e.g., ROTC).

